

David Cameron

Counterpoint
for
examination candidates

Revised Edition

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Counterpoint
for examination candidates

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PREFACE

As a teacher of theoretical subjects, the writer has sometimes found himself, or at least the subjects he teaches, under attack: "That's boring !", people say: or, "I would have finished my diploma, but the theory was just too much trouble". Like parents insisting that broccoli really is good for you, theory teachers who defend written musical subjects are unlikely to be believed, at least not at the time. Nevertheless, what I have said to those who dislike theory is actually true. It can be great fun!

As with most undertakings, the fun doesn't come at the very start. Great figure skaters and hockey stars must all start as non-skaters with weak ankles and poor balance, and before the fun can begin, those initial barriers have to be overcome. The skater has to develop strength and balance, and it takes time to build basic skills.

For writers of music, the early stages can hardly help being slow. Working with only two or three chords, while learning the hard way about such pitfalls as consecutive fifths, exposed octaves, and triads without thirds, is not really inspiring. But as her or his mastery develops, the harmonist begins to find the same pleasure which comes to anyone who makes things -- whether they are made by knitting or gardening, by carving or carpentry, by painting or sculpture or interior design. All of these activities share the joy of the good craftsman who makes something well; and sometimes they go still farther, into the special delight of creating something new.

For theory students, this process reaches its apogee in counterpoint. We're told that that great teacher of composers Sir Charles Stanford (himself no mean composer), said to one of his students, "Counterpoint ...is just an ugly name for composition". What he said is quite right: with counterpoint we are beginning to make real music, and to think, plan, and refine our work as composers do. Here we are wrestling with the elements of "style" which have led some people to call music a language. For while it isn't really a language, since it cannot make statements, define, or describe, it is nevertheless sometimes full of meaning. To study counterpoint is, in part, to study how complex music can be made to "work"; but it is also to study the sinews of the medium that carries a composer's message.

So approach it seriously; the inner life of music, like the inner lives of plants, animals, and people, is (from one point of view) a matter worthy of great reverence. It's one of the defining factors of our humanity. But it is also fun in the same way that chess is, or good strategy in any game. And the pleasure one finds when the parts fit together perfectly, and the music comes to life, is a pleasure that stays with a musician throughout her or his career.

May it be so for each student who begins this study.

David Cameron,
Kingston, Ontario
20 September, 1999

Some teachers may question the inclusion of fugue, and particularly of a section on complete fugues, in a basic counterpoint text. It is true that serious study of fugue needs more background, and more time, than many users of this book will have. Like mastery of other important technical disciplines such as Renaissance counterpoint and orchestration, full control of fugue is primarily a goal for the advanced student, who is in graduate school or seeking an advanced diploma. Nevertheless experience has shown that able students who undertake the extra challenge of writing fugues achieve a degree of fluency and security in their counterpoint, which is hard to achieve otherwise. So while teachers and students will feel free to attempt this section, or to ignore it, those who are ready to welcome challenges will find it worth their attention.

Revised Version 20 July, 2006

COUNTERPOINT

CHAPTER 1

JUST WHAT IS COUNTERPOINT?

Let's begin with some dictionary definitions:

Webster's *New World Dictionary* **Counterpoint** 1. a melody accompanying another melody note for note. 2. the art of adding related but independent melodies to a basic melody, in accordance with the rules of harmony. 3. this kind of composition.

The Concise Oxford Dictionary of Music **Counterpoint** The ability, unique to music, to say two things comprehensibly. . . the more common use of the word is that of the combination of simultaneous parts or voices, each of significance in itself and the whole resulting in a coherent texture. The section on counterpoint, from which these sentences are taken, is well worth reading. It closely follows the similar outline in Percy Scholes' *Oxford Companion to Music*.

The New Harvard Dictionary of Music **Counterpoint** The combination of two or more melodic lines; the linear consideration of melodic lines sounding together; the technical principles governing such consideration.

In his highly respected and widely used text *Counterpoint*, Walter Piston sums it up as succinctly as could be desired, in a single sentence:

The art of counterpoint is the art of combining melodic lines.

Point was an old English word for *note*, and the term counterpoint (note against) arose from the beginnings of the art, when a note in one voice-part was sounded against a note in another part (note against note = point counter point). The Anglo-Irish composer Sir Charles Stanford* is said to have told one of his students that "counterpoint, my boy, is just an ugly name for composition"

The contrapuntist's problems are really much the same as the harmonist's. Whatever the process is called, its aims must be, first, an interesting overall result for the listener; and second, flow and melodic interest in the individual voice parts. The concept of *harmony* begins with vertical structures of several notes, sounding simultaneously, which we call chords. However *good* harmonists are always concerned with the quality of the voice parts which those chords produce.

Counterpoint, on the other hand, begins with the combination of two or more melodies or voice-parts, which flow horizontally. At first glance this seems quite unlike sounding three or four notes at the same time, to produce what we know as a chord; but two or more voice-parts sounding together do produce chords. Even while s/he works to produce good flowing melodies, the contrapuntist must also be concerned with the chords which are produced. A purely chordal approach is likely to produce dull music, even if it manages to be "cor-

* Stanford was a respected composer and teacher of composers whose students included Sir Arthur Bliss, Herbert Howells, John Ireland, Gustav Holst and Ralph Vaughan Williams--almost a *Who's Who* of British composition in the first part of the twentieth century.

-rect" (but if it's dull, who cares?). On the other hand, a purely melodic approach will produce out-and-out nonsense when several melodies combine, unless the harmonic results are planned! So the writer of music must always pay close attention to both harmonic structure and melodic flow in all voice-parts. At its highest levels, like the chorales of Bach, the harmonic approach becomes almost indistinguishable from the contrapuntal.

Species Counterpoint

Historically, counterpoint used to be taught in several stages or Species. The student was given a melody in fairly long notes (usually a plainsong melody). This given melody is generally known, in Species Counterpoint, as the Cantus Firmus (or sometimes, using Italian instead of Latin, Canto Firmo). Both translate into English as *fixed song*, meaning that the student shouldn't change the given part, and both are usually abbreviated to simple initials, C.F.

To this given part the student added a new part in the same note value, one note in the added part for each note of the C.F.

Example 1 First Species

Work in First Species was intended to let the student concentrate upon just two things. First was melodic flow, the construction of smooth and singable voice-parts. Harmonic combination was second, the leading of harmony from cadence to cadence in ways which are convincing to the listener. Rhythmic problems were put off until later.

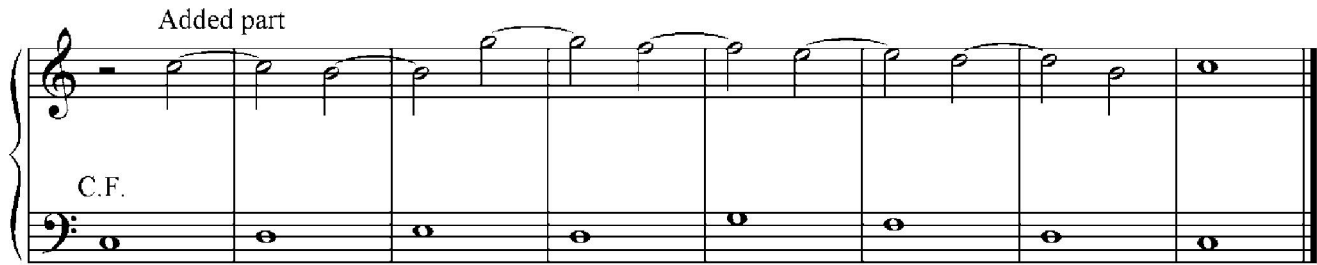
Next the student tackled Second Species, with two notes in the new part to each note of the given one. When it was mastered s/he went on to the Third Species, four notes against each one in the cantus firmus.

Example 2 Second Species

Example 3 Third Species

Fourth Species posed interesting challenges, because it consisted entirely of syncopated movement like this:

Example 4 Fourth Species



Finally, in traditional contrapuntal instruction, the student could work in “Mixed Species”, or Fifth Species, freely combining all the different rates of motion against the C.F.

Example 5 Fifth Species



Strict and Free Counterpoint

The difficulty with Species Counterpoint is that it has very little to do with real music, which almost never keeps up a pattern like any one of the first four Species. So as time went by, contrapuntal study tended to separate into two streams. One, based on the purely vocal counterpoint of the Renaissance composers (Palestrina, Victoria, Lassus, and all the other great composers of the sixteenth century), is often called *Strict Counterpoint*. Its purely vocal part-writing requires fairly stringent restrictions about leaps and melodic shape. Coming from an early period in the understanding of harmonic combinations, it is also quite limited in its harmonic vocabulary. Strict counterpoint makes us very conscious of the quality of *singability*, and musicians trained in other systems often have to be reminded of the importance of melodic flow.

The other contrapuntal stream, often called *Free Counterpoint*, is based upon the Baroque style of composers like Handel, Vivaldi, and particularly of J.S.Bach. Even when writing for voices, this style is often less flowing, with more and bigger leaps. Its faster passages move more quickly and vigorously than those in Strict Counterpoint. In the generations before Bach some composers wrote deliberately in two quite different styles, the *stile antico* (old style) imitating sixteenth-century strict counterpoint, and the *stile moderno*, the modern style we now call the Baroque. When the new style was just developing it was natural for composers to experiment with old and new approaches, but by Bach's time the conscious imitation of sixteenth-century style had become pretty stale and unconvincing.

The difference in the styles is partly because, in the half-century before Bach, music had become much more dominated by instruments. Composers were concerned first of all with developing a style which sounded well with instruments. Voices are most comfortable with flowing melodies which move by step or in small leaps. Instruments, especially the strings, are very comfortable with larger leaps, because the player has only to shift the bow to another string to produce a leap of a fifth or more. Free Counterpoint is also more adventurous harmonically, because the understanding of dissonance and the flow of chords had developed considerably in

the century and a half that separated the maturity of the two styles.

Until quite recent times, Strict Counterpoint was taught in the old way, through the five Species. This was partly because it helps students to understand the rich and large repertory of music we have inherited from the Renaissance. A more important reason was that it is a sure way to learn to write good vocal melodies. The writer believes that melodic flow should be studied from the beginning, in harmonic as well as contrapuntal studies. Strict or Renaissance counterpoint remains an important study for music historians and composers of vocal music, but the so-called Free Counterpoint is the texture we seek to develop in this book.

Nevertheless teachers and students are reminded that good singable melodies are the real foundations of all music. Some review of the section on Melody Writing in the author's *Expanded Basic Harmony, melody writing, and analysis for examination candidates* might be a good idea, unless the student has studied it or a similar approach quite recently. To assist in that review, here is a précis of that section, with a few exercises to help the student to concentrate on the elements of melody.

Melody Writing

Tonal Organization: the Scale, our melodic raw material

The scale is the source of raw materials for melody-building. We have a free choice of which scale-notes to use where, except that the nature of the scale-notes themselves imposes some limits. The nature of scale-notes is pretty well described by their functional names:

- Tonic** *The home plate of melody: where the scale begins and ends. So do many tunes.*
Supertonic *The note above the tonic. Sung on its own, it tends to want to come home to the tonic.*
Mediant *The midway point between Tonic and Dominant; it can happily ascend or descend*
Subdominant *The note below the Dominant, but also almost a lower dominant. Like the dominant, it can create a cadence on the tonic; but it also leads us away from the tonic, and to the dominant.*
Dominant *The note which, after the Tonic, dominates the key. Much of the action in both melody and harmony comes with the pull away from one, and toward the other.*
Submediant *Midway between Tonic and Subdominant, and fairly neutral, like the Mediant.*
Leading Note *A very powerful action-note, which wants to rise strongly into the Tonic.*

Play a scale, and then linger on the individual notes in different orders. Feel how some call for you to move somewhere, and others seem ready to settle down and rest. Notice how uncomfortable it is to play up to the Leading Note, pause on it, and then drop; and try to find corresponding “homing tendencies” of the other notes. (N.B. These homing tendencies are less clear-cut, and less consistent, than the single-minded fixity of purpose we get from the Leading Note).

These characteristics combine to create our sense of tonality, that is, our sense that music travels, moves away from its start, and finally homes in on its conclusion. In complex ways that have to do with our experience (as individuals, but also as a society), this hierarchy of pitch functions seems to help us to perceive melody as beautiful (or sometimes—alas!—not beautiful), and expressive. Examine a couple of melodies, both in the key of G major—that is to say, using the notes of the G major scale as their building blocks.

Example 6

(a) 

(b) 

Of the two (a), the first is the less satisfactory. It fails three critical tests:

- (i) It is a random selection of notes, which either ignores the tonal direction of each note, or even sometimes contradicts it. On the whole, it starts nowhere and goes nowhere.
- (ii) Although there are certainly high and low points in the melodic shape, there is no clear sense that it managed to reach a peak, and then to curve down to a convincing point of arrival.
- (iii) "A melody is a coherent succession of pitches", but this line is not very coherent. Its various rhythmic shapes have little to do with each other, and there isn't much natural flow.

Compare this with the second example (b), which is from an Irish folk song.

- (i) The notes fall into natural pitch patterns: bar 1 circles around the Tonic, G; bar 2 moves away to the Dominant; and bars 3 and 4 return to the Tonic.
- (ii) The melody flows in pleasant curves, upward, then more slowly down; up again, to reach a peak: at the C (bar 3, beat 3); and then it settles back home, to the Tonic. The melody has a shape.

2. Rhythmic Organization

The flowing, curved line helps the Irish folk melody to feel as if its parts all belong together; but what really makes it coherent is the rhythmic figure which appears in the anacrusis or pickup bar, and extends through three beats of the first complete bar. It is repeated in the second complete bar, beginning with beat 4 of the first bar, and then is echoed at double speed (or as musicians generally say, *in diminution*) in bar 3. This kind of *figural structure* is very important for contrapuntal work, because it not only unifies a single melody, but can also link together the two or more voice-parts of a contrapuntal piece.

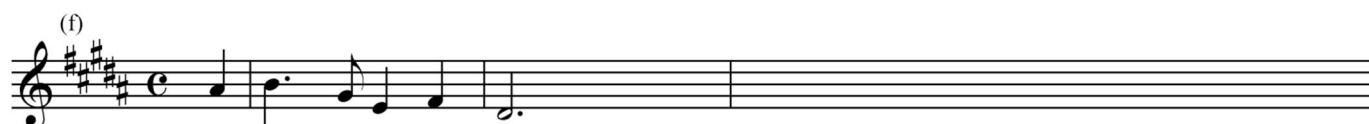
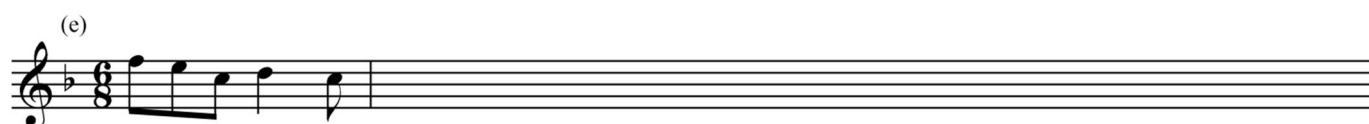
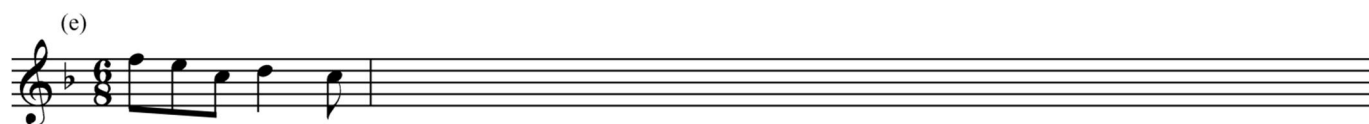
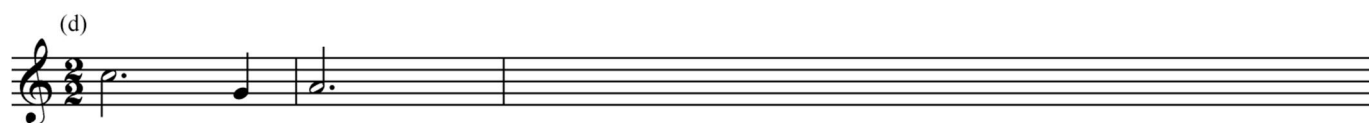
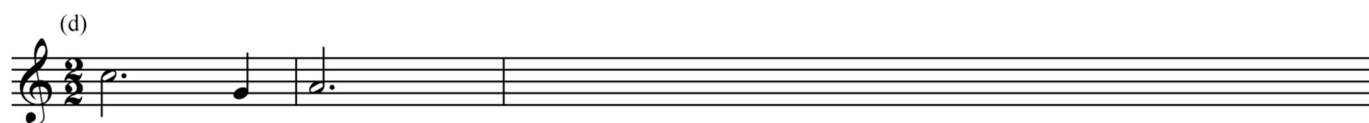
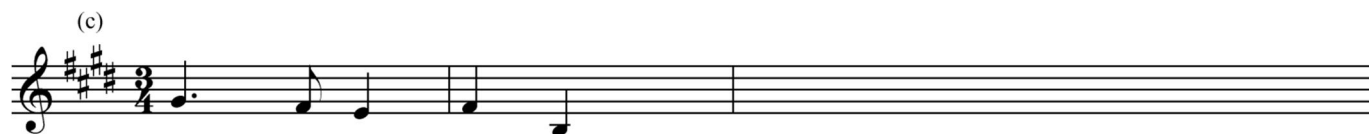
Example 7

The figure Double speed, bar 3

The complete rhythmic outline

Exercises

1. Write at least two extensions to each of these given openings (you can copy to make more). Each extension should consist of at least three or four notes, up to about four bars altogether. Explore how many different versions you can create which actually "fit" or follow naturally from each opening. Decide which of your extensions you prefer, and see if you can decide why:



2. From the following unrhythmic sequences of notes, create real tunes by adding a time signature and note values.

(a)

Two staves of music in G major (one sharp). The first staff contains a sequence of 16 eighth notes: G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3, G3, F#3, E3. The second staff contains a sequence of 16 eighth notes: D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, ending with a double bar line.

(b)

Two staves of music in D major (two sharps). The first staff contains a sequence of 16 eighth notes: D4, E4, F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3. The second staff contains a sequence of 16 eighth notes: G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, ending with a double bar line.

(c)

Two staves of music in D major (two sharps). The first staff contains a sequence of 16 eighth notes: D4, E4, F#4, G4, A4, B4, C5, B4, A4, G4, F#4, E4, D4, C4, B3, A3. The second staff contains a sequence of 16 eighth notes: G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, ending with a double bar line.

Rhythmic Unity

Rhythmic unity is what usually turns a selection of notes-from-the-scale into a "coherent selection of pitches"; the coherence is always at least partly rhythmic. So a *rhythmic outline*, beginning with what is given, and extending it, is a very useful stage in the construction of a successful melody. A rhythmic outline is made after examining the given part.

Example 8

Given melodic opening:

First, reduce it to a rhythmic skeleton, without pitches, decide what are its main rhythmic features, and mark them. Some or all of the rhythmic patterns (figures) you discover will show up in your extension of the given opening, or in the writing of a contrapuntal part to combine with what is given.

Example 9

Figure 1 shows the musical notation for the three parts of the exercise. Part (a) is in 3/4 time and consists of two measures: the first measure has a quarter note followed by a quarter rest, and the second measure has a quarter note followed by a quarter rest. Part (b) is in 3/4 time and consists of two measures: the first measure has a quarter note followed by a quarter rest, and the second measure has a quarter note followed by a quarter rest. Part (c) is in 3/4 time and consists of two measures: the first measure has a quarter note followed by a quarter rest, and the second measure has a quarter note followed by a quarter rest.

3. **More Exercises** Extend the following rhythmic openings to eight-bar length. Use rhythmic figures the openings suggest, *but not mechanically*: the result must make sense to the ear when it is tapped or spoken aloud.

Do not use the lower staves yet—they're for Exercise 4.

(a)

(b)

(c)

(d)

Combining Rhythmic and Tonal approaches

Very often a rhythmic outline will suggest pitches, or at least where the pitch might rise or fall. If filling out a rhythmic outline with notes seems to be a gigantic undertaking, try approaching it this way:

1. Prepare a good rhythmic outline.
2. Hum through the given opening, and experiment with the location of the next note. Fortunately, your

choices are fairly limited. Most likely you will move:

Up a second, third, fourth or fifth; or **Down** a second, third, fourth, or fifth
The big leaps are less common: sixth, seventh (minor seventh only), and octave.

Experiment with each of these, until you have found a choice which seems to work

3. Go back to the beginning, and hum the tune again, including your newly added note. *Very often finding one note brings several others with it, but if this isn't so, work away a note at a time (always going back to the start so that your new note is being heard in context).* Perseverance at this will payoff.

Still More Exercises!

4. Take the rhythmic outlines you developed in Exercise 3, and add pitches through each of them. Don't be afraid to alter your rhythmic outline if it begins not to feel or sound right. Some give and take between the invention of rhythms and the adding of pitches is normal and should be expected.

Harmonic Organization

In the chapter from which this section is taken, the student learns to construct a tune from a harmonic matrix, by picking out particular notes; if you like, you can do it in the style of a connect-the-dots puzzle. The dots in your matrix are all harmony notes, so feel free to add passing notes and appoggiaturas if they seem to fit. Remember that a good tune travels in curves; that it reaches a single highest peak, with perhaps one or two lower secondary peaks; and that it must sound convincing. That means no unresolved dissonances or leading notes, no awkward leaps, and few if any repeated notes.

In contrapuntal work the harmonic matrix consists of possible harmony *with the given part*. It will rarely be necessary to write out an entire matrix of all the possible harmony notes; at this stage the student should be fluent enough to visualize the chord-notes from their chord symbols. But now and then with a particularly tricky passage (or writing on a particularly bad day), it may help to pencil in the possible notes as dots, and then work out a melody from among these dots.

Remember that above all, you must sing or hum your tune, and be convinced by it when you do!

Combining all the approaches

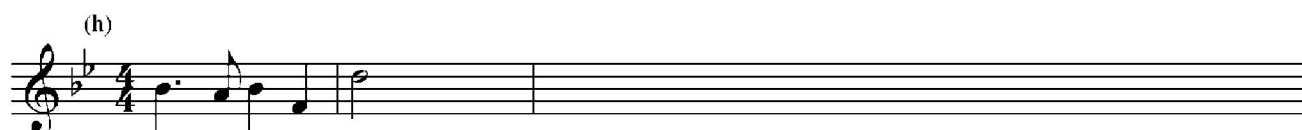
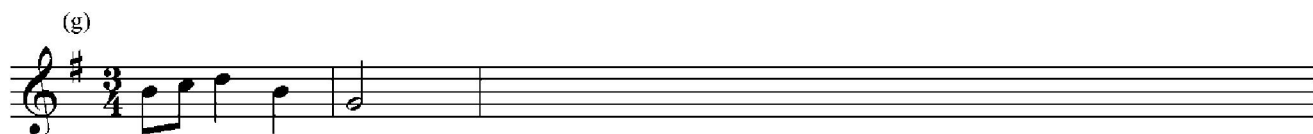
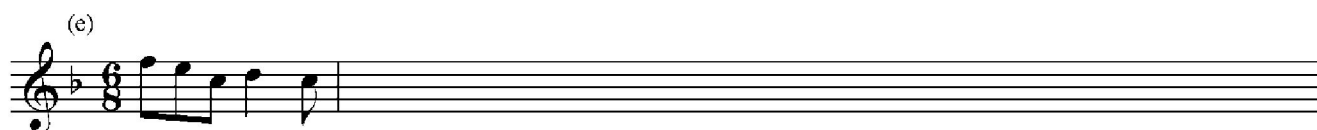
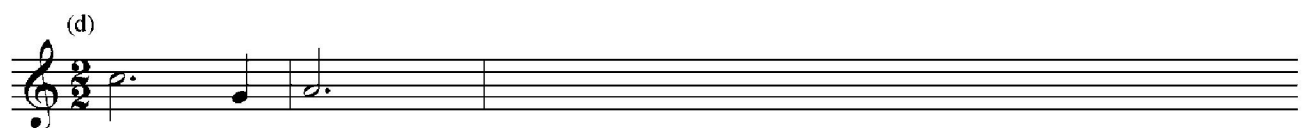
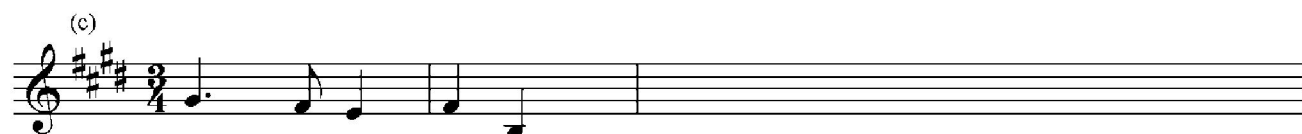
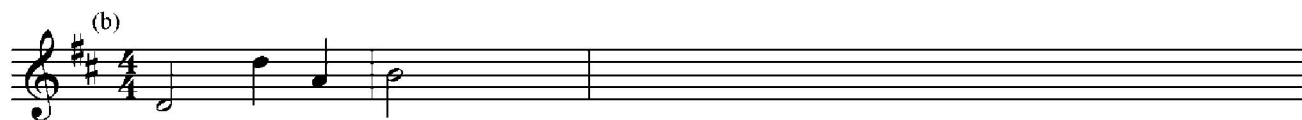
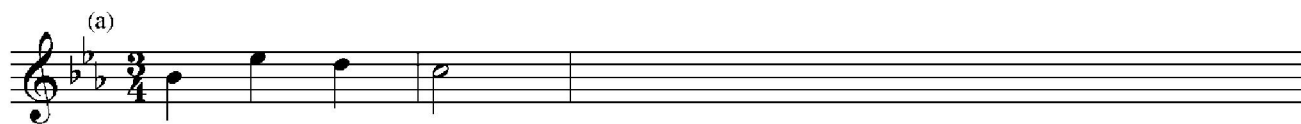
The construction of melodies is a kind of balancing act. Sometimes it all starts with a rhythm; sometimes a pitch seems to be "right", and the rhythmic structure and other pitches follow from it. Sometimes nothing will do, but to battle one's way through the harmonic organization of the eight bars, and from it to build a melody. To some extent all three approaches will be used in every successful tune,

Always remember that the imagination can be very greatly helped in its "seeing", or for us in its "hearing", by systematic experiment. The skilled worker doesn't so much invent his or her melodies, as discover them; they seem to be waiting there already, in the mass of possible notes. Some sculptors and woodcarvers claim that they discover their works in a similar way, by finding what is "hidden" within the stone or wood. It's very instructive to see Beethoven, for instance, working out the exact form of a figure or theme over many weeks of work. If you have the opportunity, examine what he left us in his notebooks.

Remember also that the presence or absence of *anacrusis* (upbeat attack, or "pickup") is almost always consistent. If the melody opens with an anacrusis, so will each succeeding phrase or half-phrase.

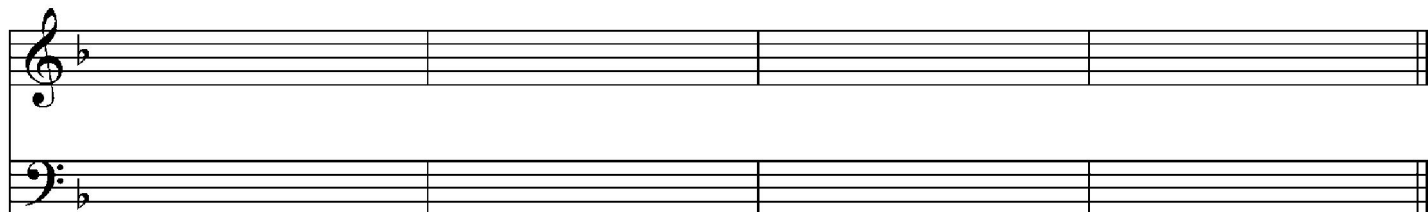
And yet more exercises...

Continue these openings for two or three bars

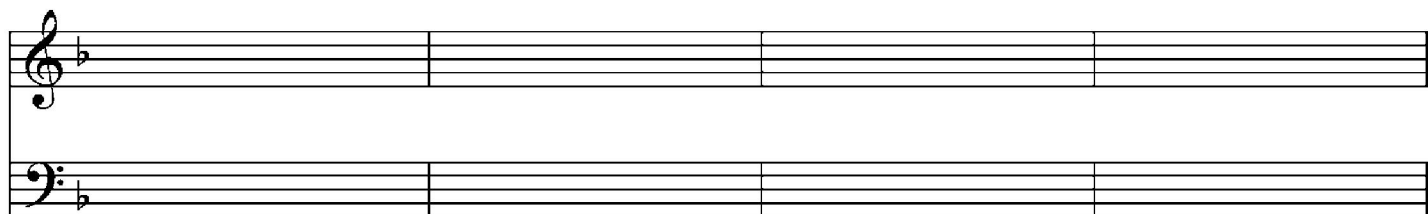


5. On the following two pages, extend the following openings to eight-bar length, with two cadences (Imperfect and Perfect or Plagal) harmonized in four parts and identified by cadence type. Show the phrasing.

(a)

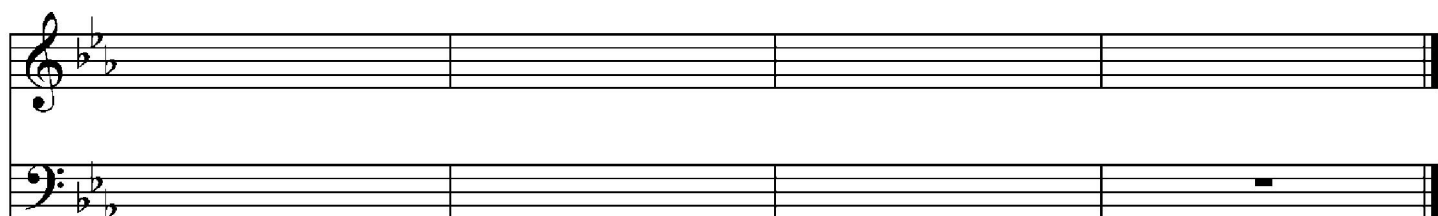
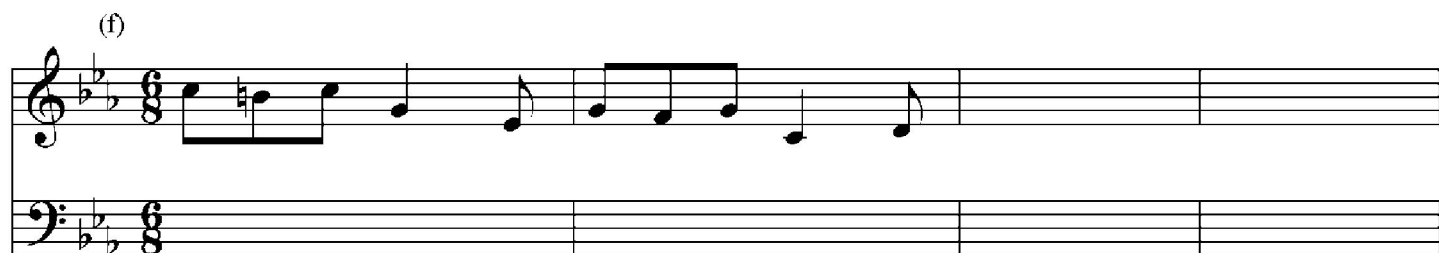
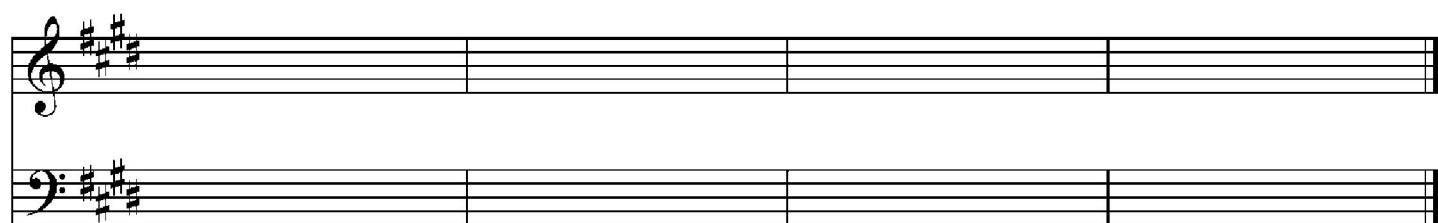
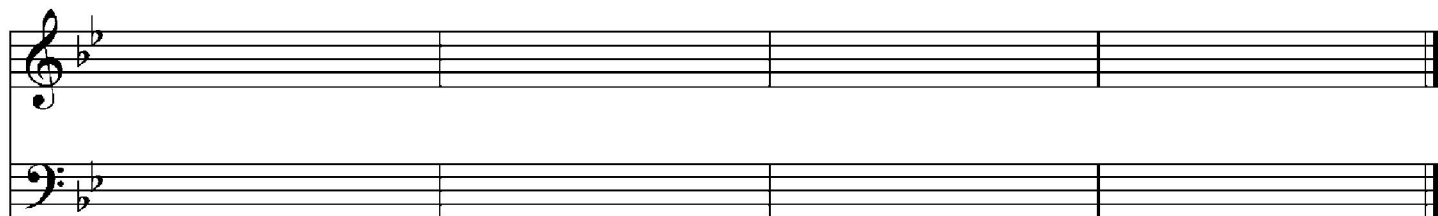
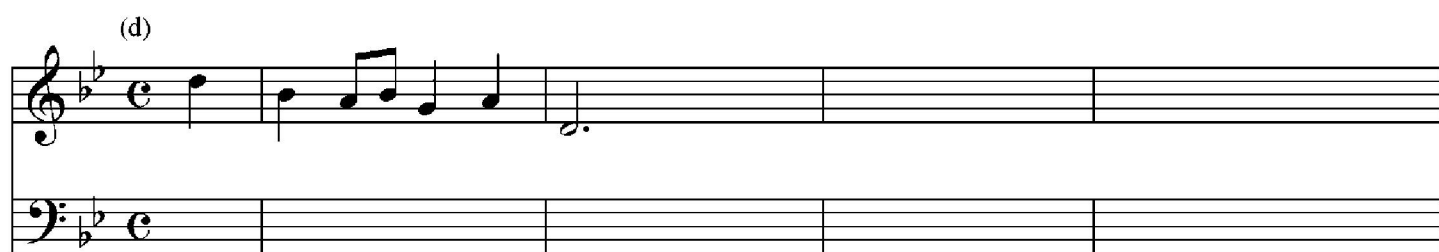


(b)



(c)





CHAPTER 2

A MODIFIED SPECIES COUNTERPOINT IN TWO PARTS

Students who have worked through *Basic Harmony for examination candidates* and the first part of this book, or other good harmony texts, will already have solved many of the problems of melody writing. They will also be familiar with the use of unessential notes: passing notes, auxiliaries or neighbours, and the various forms of appoggiaturas and suspensions.

For students who have mastered this material it seems pointless to reinvent the wheel by starting with one note against each given note. We will therefore begin by combining the First and Second Species of traditional instruction. Against each note of each C.F. in this chapter, you will be asked to write one or two notes. Let's consider what this involves.

Melodic Flow

All the criteria of good melody and part writing apply in two parts as they do in four, but because each voice-part is so exposed when there are only two of them, some other things need to be considered as well.

Leaps All major and minor leaps are good, including rare appearances of the tenth (third plus an octave). Diminished leaps downward to the leading note are good. This may also include the leading note of a secondary dominant. Other diminished leaps, and all augmented leaps, should be avoided.

Example 1

Good

All awful

Good

Large intervals should always be approached from inside the interval, and left by returning inside it as at (a). Approaching or leaving a large leap from outside, as at (b) and (c), is awkward. If the interval is larger than a fifth, or if it is both approached and left to the outside of the interval as at (d), it is impossible. Two leaps in one direction should not total more than an octave, as at (e), and there should not be more than three consecutive leaps in one direction (f).

Example 2

Good

All bad

In general, broken-chord passages may occur, but they should form only a smallish part of the whole. Passages like those below are not usual in the style, and would attract the angry attention of examiners (especially the Alberti bass pattern at (c)).

Example 3

Harmony in Two Parts

In theory the harmonic resources are the same, whether we are writing in two, three, or even more parts. In practice, however, a number of limitations and ambiguities can appear when writing only two parts.

Obviously, chords in two parts can never be complete. Whether we are dealing with triads, or with four-note forms like seventh chords, or with higher discords which potentially contain five or more useful notes, we can never actually sound more than two of those notes at a time. This means that the third or fourth note of every chord must be implied. Some implications are clearer than others, as the following examples show.

Unisons and **Octaves** are always bare, and tend to sound thin. They shouldn't be used regularly, at least not on main beats where the listener's attention is drawn to them, as at (a) below. They are possible on weak beats as at (b) and (c), though there is often something better available. They are completely satisfactory in final cadences (d), or at the beginning of a piece (e).

Example 4

(a) * * (b) * (c) *

J. S. Bach, *Invention* No. 7, BWV 778

J. S. Bach, *Sinfonia* No. 13, BWV 799

(d) * (e) * *

Seconds are dissonant, and most frequently the lower note is unessential, usually a suspension, as at Examples 5 (a) and (b) or an appoggiatura (5 c). Then the lower voice is heard as a dissonance, and must resolve down a step. After a unison (see above--this is rare), a second may be produced by a passing note rising in the upper voice (5 d), or falling in the lower voice (5 h). Seconds are marked with asterisks * in Example 5:

Example 5

Vivaldi, *Concerto Grosso*, Op. 3 No. 2

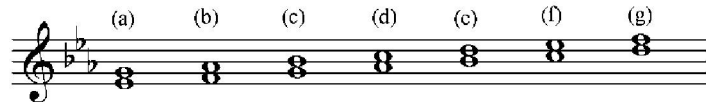
Wilhelm Friedemann Bach, *Fugue*

(a) * (b) * (c) * (d) * (e) *

There is one situation in which a second can represent two harmony notes: when it represents the lower notes of a seventh chord in third (4-2) inversion. This works just like most other seconds; however since, if the combination represents a seventh chord in 4-2 position, the lower note is the seventh, and (like unessential seconds) it should resolve down by step, as at (a) above. Thus, even though it's a harmony note, its treatment is just like that of unessential seconds.

Thirds are consonances. Sometimes the chords they represent are quite obvious: the lower two notes of most triads suggest those triads. In the example below (a) is most likely **I**, (b) is probably **ii**, (d), (e), and (f) are likely **IV**, **V**, and **vi**. Others, however, more apt to sound like first inversion triads. For instance (c) is more apt to sound like **I**⁶ than **iii**, (g) to sound like **V**⁶, because **iii** is less common than **V**, and **vii** rarely occurs in root position. We usually hear *the most probable* chord; the chord at (g) could possibly be a **vii**^{o7}, for instance, but the simple **V** is much more likely. What is *most probable* depends very much on the context. If the minor third at (b) precedes a **V**, it's almost certainly **ii**; but if you read backwards, so that (b) precedes (a), it's likely **vii**⁶ approaching **I**.

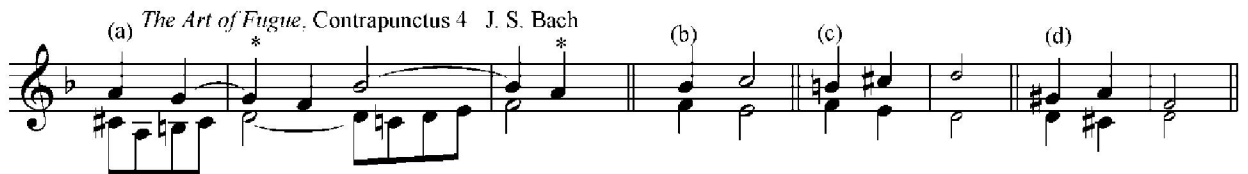
Example 6 *Thirds in E flat major*



Some thirds are quite happily ambiguous. For instance in C major the thirds *a - c*, *e - g*, *a - c* could equally well be **vi - iii - vi**, or **vi - I**⁶ - **IV**⁶. In two parts the sound is the same, and each is perfectly acceptable.

Fourths are dissonant. Unless they occur as the result of passing or auxiliary notes, either the upper voice should fall, to a third from the bass (7a), or both voices should move--the upper one rising, and the lower one falling, so that the fourth opens out into a sixth (b). The augmented fourth occurs between a leading note and the fourth below, and since these are the active notes of **V**⁷, the rising third and the falling seventh, it should be treated as **V**⁴₂, opening out into a sixth, which will be heard as **I**⁶ (c). Naturally, this might be a secondary dominant, as at (d).

Example 7

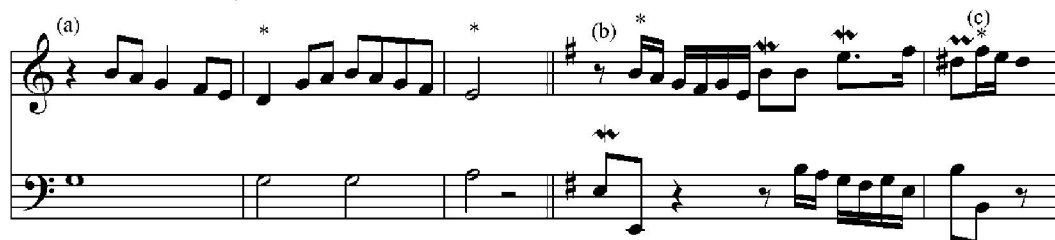


Fifths are stable, and technically consonant, but a bare fifth is a triad with its third omitted - never a good idea! In two parts bare perfect fifths are allowable only at the beginning or end (b), or on weak beats or off the beat (c). On main beats they sound very hollow to us, although example (a) shows that they didn't bother earlier musicians (Scheidt lived 1587-1654, Bach almost a century later, 1685-1750). Fifths on main beats should be unusual; try to find something else, but use them if changing them will weaken the rhythmic or melodic motion.

Example 8

Samuel Scheidt, *Tablatura Nova*. Gelobet seist du

J. S. Bach. *Invention No. 7*. BWV 778



Consecutive perfect fifths or octaves sound even worse in two parts than they do in four, and are strictly forbidden (a, b). As in other styles, a perfect fifth may be followed by a diminished fifth, (c), so long as the diminished fifth is resolved. It will sound as V^6_5 , so the upper voice feels like a seventh and must fall, and the lower voice feels like a leading note and must rise. This is why the diminished fifth must follow the perfect one; in two parts the diminished fifth will always resolve into a third.

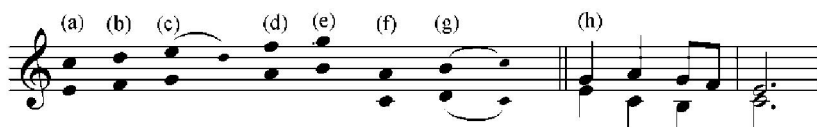
Example 9



Sixths also are consonant. Usually they sound like first-inversion triads (a, b, d, e, f, g). Those at (b) and (g) could be dominant sevenths, although (g) is just as likely vii^7 , and the resolution is the same for both. On rare occasions other seventh chords may be suggested

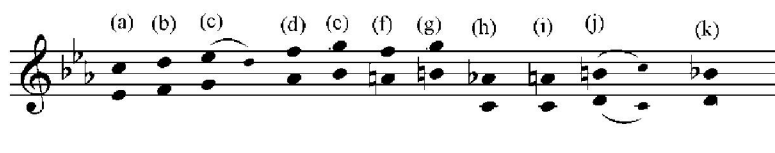
In the right context--that is, at a cadence--the cadential six-four may appear as a sixth (c), and the other standard uses of the six-four may also be suggested, except for the auxiliary six-four. A moment's reflection will show that the auxiliary six-four can't be represented by a sixth, because it would have to come between two appearances of a bare fifth -- poor writing in two parts. At (h) the second chord could be either ii^4_2 or V^4_2 of V: either will do.

Example 10 Sixths in C major



In minor keys sixths generally behave in the same way, though of course there are alternative versions of some of them because of the melodic minor. As with the major key, most sixths suggest first-inversion triads (a, b, c, d, e, f, and g, and also h and i). The sixth at (j) must be V^4_2 (or its incomplete version as vii^6), resolving as shown. As in the major, (c) can be a cadential I^6_4 .

Example 11 Sixths in c minor.



Sevenths can represent seventh chords as at (a). Otherwise one note is unessential. The lower note is almost always the harmony note, and the upper one should resolve down a step, into a sixth.

Example 12



All of this can be summarized fairly simply:

Triads are represented by thirds and sixths.

Fifths and **octaves** are bare: use only at beginning or end, or on weak beats.

Seconds, **fourths**, and **sevenths** are *dissonant* and require resolution.

Use your common sense, and play all your work (but only after it's finished -- don't form the habit of using the piano as you write, because you won't have one during an examination!).

Working exercises in two parts: three basic points to remember.

1. *Your harmony must be clearly symbolized.* Do this first, beginning with cadences. And remember: it must make sense as harmony, and avoid grammatical errors. Consecutive or exposed fifths and octaves, bad leaps, and so on, sound even worse in two parts than they do in four. Identify and label unessential notes, as passing (P), auxiliary (A), appoggiatura (App), suspension (Susp) or other. Unless they are cambiata or single changing notes, don't leap to or from unessential notes.
2. Remember that *it is often more interesting to have dissonance sound on the beat against a chord change*, than to put all unessential notes on weak beats. Look for opportunities to use appoggiaturas and suspensions.
3. As with soprano and bass parts in four-part writing, but even more so in two parts, *the parts should generally move in contrary motion*. Nevertheless *some similar motion is natural and unavoidable*. Where there is a choice it's usually best to have contrary motion onto main beats, and similar motion at rhythmically weaker points, but this is by no means an absolute "rule", just generally preferable.

EXERCISES

1. Complete the following in two parts, using the note values indicated for each exercise.

(a)

The exercise consists of two parts. The top part is a single melodic line in common time (C) with a key signature of one flat (B-flat). It begins with a whole rest, followed by a sequence of eighth notes: G4, A4, Bb4, C5, Bb4, A4, G4. This is followed by a half note D5, then a half note C5, and finally a whole note Bb4. The bottom part is a two-part setting in the same key and time. The treble staff is empty. The bass staff contains a whole note Bb3, followed by a half note A3, and then a half note G3. The exercise ends with a double bar line.

(b)

Single staff, Treble clef, G major (one sharp), common time (C). The melody consists of a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F#5, G5, F#5, E5, D5, C5, B4, A4, G4. The piece ends with a double bar line.

Single staff, Treble clef, G major (one sharp), common time (C). The melody consists of a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F#5, G5, F#5, E5, D5, C5, B4, A4, G4. The piece ends with a double bar line.

(c)

Single staff, Treble clef, E-flat major (three flats), 3/4 time. The melody consists of a sequence of quarter notes: E4, F4, G4, Ab4, Bb4, C5, D5, E5, D5, C5, Bb4, Ab4, G4, F4, E4. The piece ends with a double bar line.

Single staff, Treble clef, E-flat major (three flats), 3/4 time. The melody consists of a sequence of quarter notes: E4, F4, G4, Ab4, Bb4, C5, D5, E5, D5, C5, Bb4, Ab4, G4, F4, E4. The piece ends with a double bar line.

(d)

Exercise (d) is a musical score in 6/8 time. It consists of three systems. The first system has a treble staff with a melody and a bass staff that is empty. The second system has a treble staff with a melody and a bass staff with a bass line. The third system has a treble staff with a melody and a bass staff with a bass line. The key signature has one sharp (F#).

2. Complete the following in two parts, using the indicated rhythm for the added part.
Be sure to show your harmonic basis by using chord symbols.

(a)

Exercise (a) is a musical score in 3/4 time. It consists of three systems. The first system has a treble staff with a melody and a bass staff that is empty. The second system has a treble staff with a melody and a bass staff with a bass line. The third system has a treble staff with a melody and a bass staff with a bass line. The key signature has two flats (Bb, Eb).

(b)

The musical score is written for piano and consists of two systems. Each system contains a grand staff (treble and bass clef) and a single treble staff below. The key signature is one flat (B-flat) and the time signature is common time (C). The first system has four measures. The second system has four measures, ending with a double bar line. The notation includes various note values, rests, and a fermata.

System 1:

- Measure 1: Treble staff has a half note B-flat, a quarter note D, and a quarter note E. Bass staff is empty. Single staff has a half note B-flat.
- Measure 2: Treble staff has a quarter note F, a quarter note G, a quarter note A, and a quarter note B. Bass staff is empty. Single staff has a half note B-flat.
- Measure 3: Treble staff has a quarter note C, a quarter note D, a quarter note E, and a quarter note F. Bass staff is empty. Single staff has a half note B-flat.
- Measure 4: Treble staff has a quarter note G, a quarter note A, a quarter note B, and a quarter note C. Bass staff is empty. Single staff has a half note B-flat.

System 2:

- Measure 1: Treble staff has a quarter note D, a quarter note E, a quarter note F, and a quarter note G. Bass staff is empty. Single staff has a half note B-flat.
- Measure 2: Treble staff has a quarter note A, a quarter note B, a quarter note C, and a quarter note D. Bass staff is empty. Single staff has a half note B-flat.
- Measure 3: Treble staff has a quarter note E, a quarter note F, a quarter note G, and a quarter note A. Bass staff is empty. Single staff has a half note B-flat.
- Measure 4: Treble staff has a quarter note B, a quarter note C, a quarter note D, and a quarter note E. Bass staff is empty. Single staff has a half note B-flat.

CHAPTER 3

THREE NOTES AGAINST ONE

In this chapter we will continue a modified Species Counterpoint, dealing with processes more or less like those covered historically by the Third and Fourth Species. However we won't work with just one rhythmic pattern at a time, as strict Species Counterpoint does. In addition to the four-against-one of the traditional Third Species, the chapter begins with a section using three notes in the added part against one in the Cantus Firmus..

Three Notes against one given note

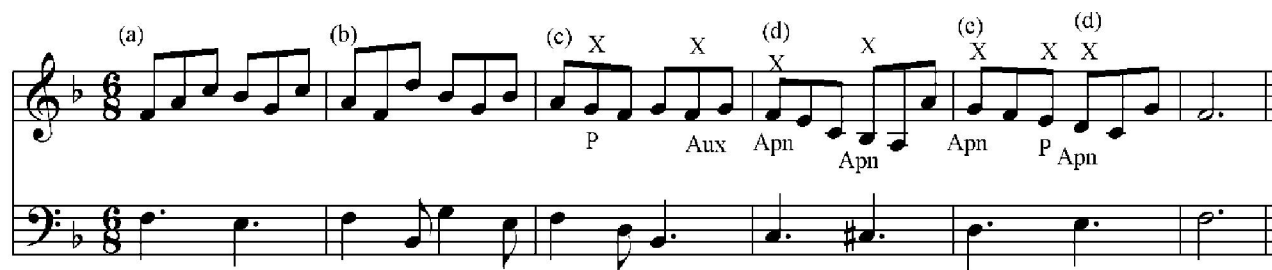
A moment's thought will show that a pattern of, for instance, three eighth notes against a single note in the given part can come about in only three ways. If the music is in simple time (2/4, 3/4, 2/2, 4/4, etc.), so that each beat normally divides in two halves, the three-note figure may be a triplet as at Example 1a). The moving notes could also be single beats in simple triple time, for instance quarter-notes in 3-4 time, sounded against dotted half notes (b). The third possibility comes in compound time (6/8, 6/4, 9/8, 12/8, etc.), where the main beat is a dotted note (the dotted quarter at (c)). Then its natural division normally is into three smaller notes, in this case eighth notes

Example 1

Fortunately, whether the three-note group is a triplet, or the normal grouping in compound time, the treatment is the same.

Consider the possibilities.

The three notes could all be harmony notes in the same chord (Ex. 2a) or in different chords (2b). If they aren't all harmony notes, the middle one could be unessential (2c), or the first one (2d), with two harmony notes. Or finally the first and third notes could be unessential, with a harmony note in the middle (2e). Unessential notes are marked with "X".

Example 2

EXERCISES

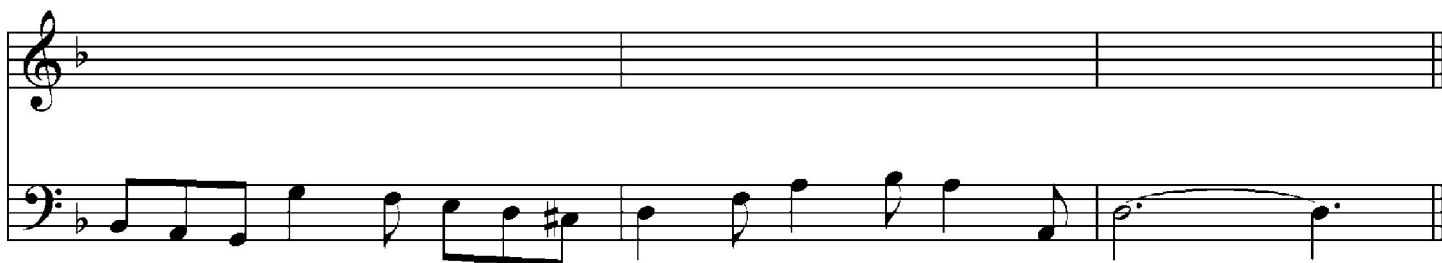
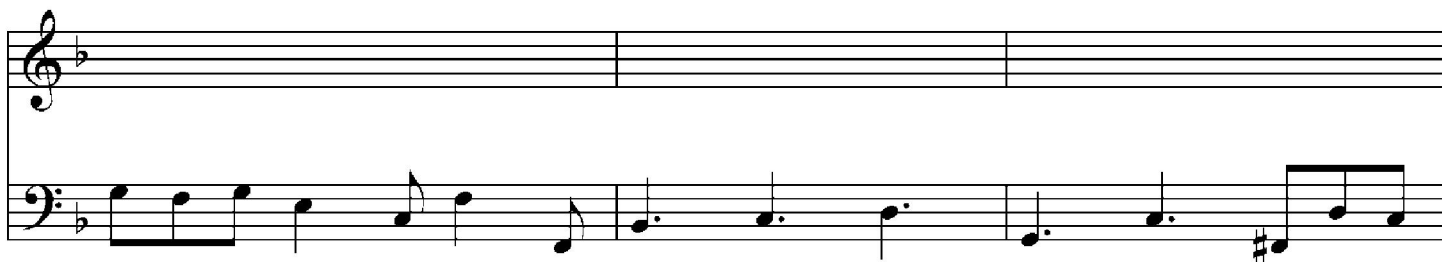
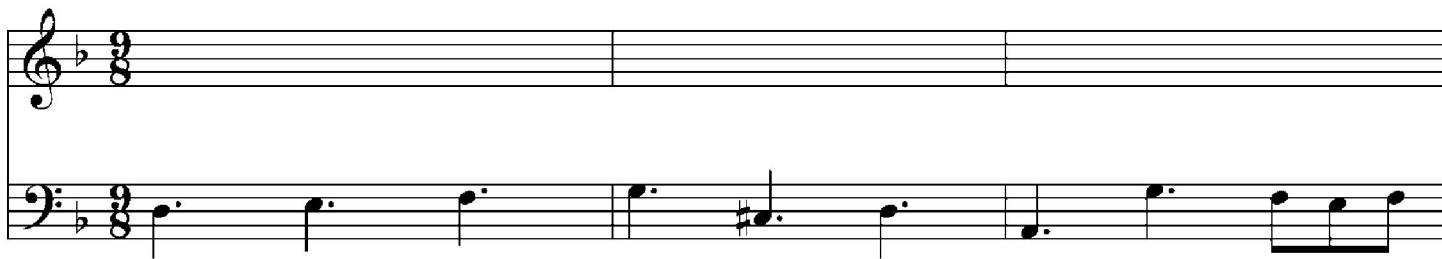
1. Complete the following in two parts, maintaining the suggested rhythmic patterns.

(c)

(d) Add soprano, mostly in quarter notes. Don't neglect strong-beat dissonance.

Neapolitan
Sixth

(e) Add a soprano part, mainly in groups of three eighth notes. You will need to include occasional eighth rests and quarter notes (dotted, or with an eighth following).



CHAPTER 4

FOUR NOTES AGAINST ONE; TIES AND SYNCOPATIONS

Four Notes against one given note

The simplest form of four-against-one is probably a group of sixteenth notes in the added part, against a quarter note in the given part (Ex. 1a).

Of course this could just as well be four eighths against a half-note, or four quarters against a whole note, and so on. The pattern can occur in compound time with a quaterlet or two duplets (b) against a longer dotted note, but this is fairly unusual, and we will work in simple time. In any case the treatments would be the same.

Example 1

Consider the harmonic possibilities with four against one:

The four might be *all harmony notes* as at Example 1 (a), beat 3; but this won't happen very often because broken-chord patterns aren't characteristic or common in two-part counterpoint.

More frequently four-note groups work in these ways:

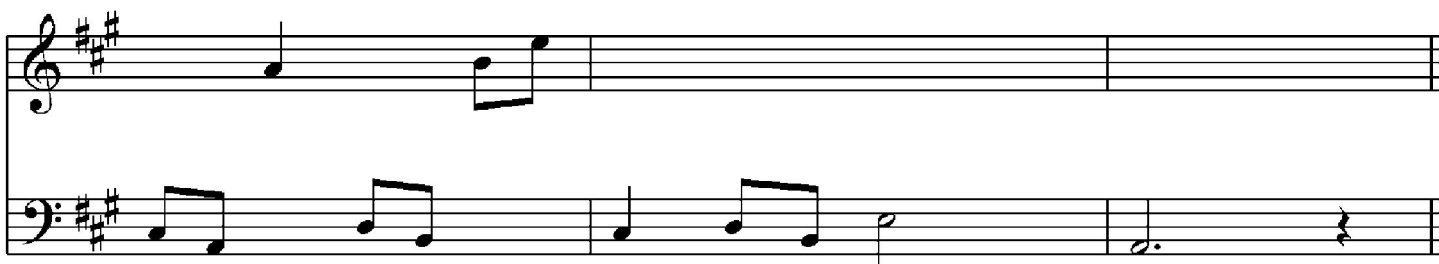
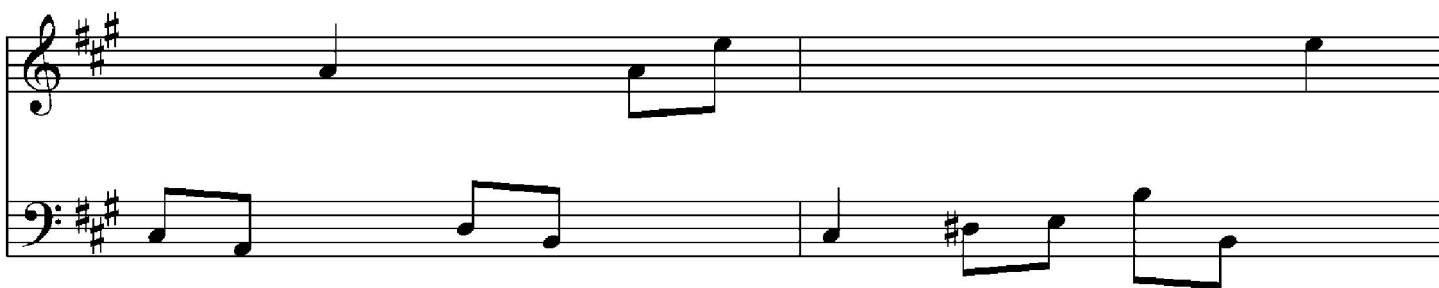
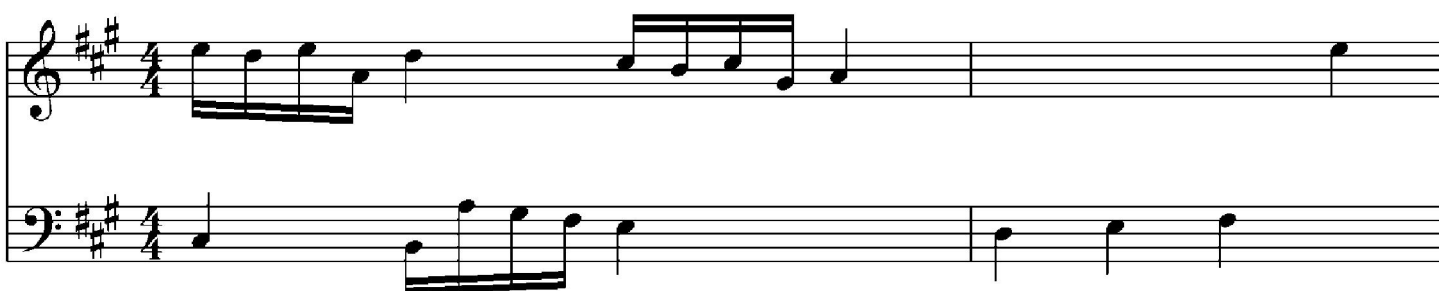
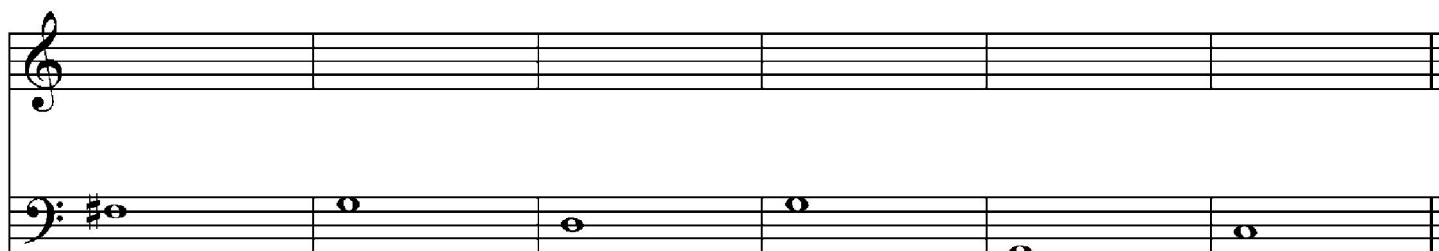
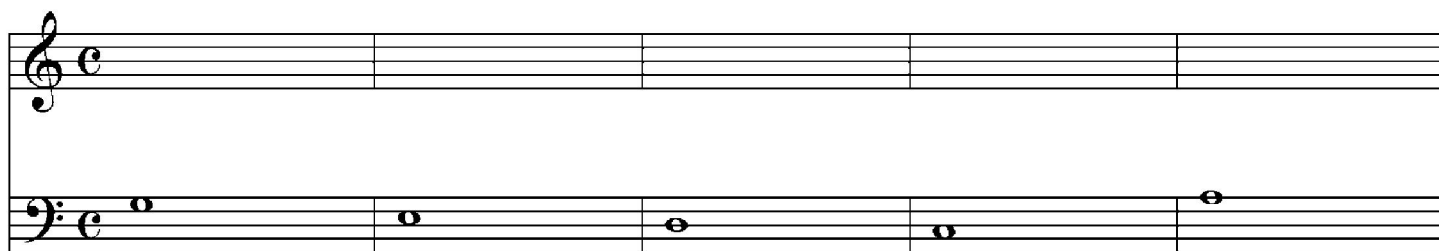
- two unessential notes and two harmony notes (b) and (c), or
- three harmony notes and one unessential note (d, e, f, g). (Unessential notes are marked "X")

Example 2

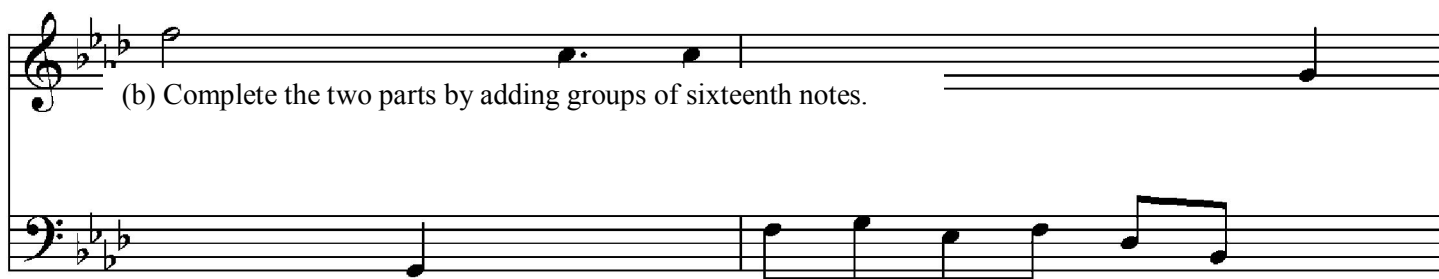
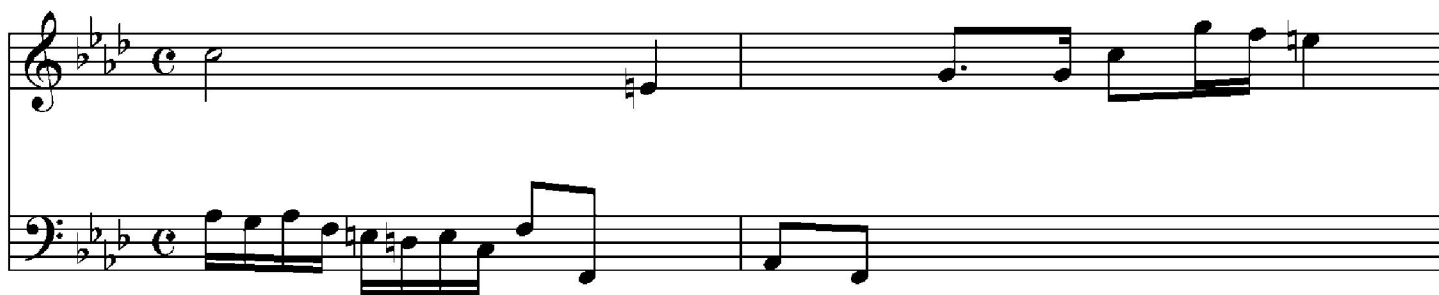
EXERCISES

2. Complete the following, using the suggested rhythmic materials.

(a) Add an upper part entirely in quarter notes, except for the last bar.



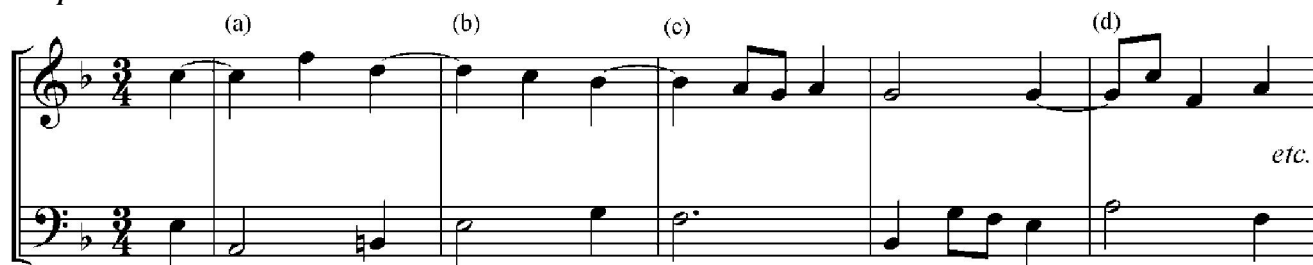
(c) Complete the two parts by adding groups of sixteenth notes.



Ties and Syncopations

Music very rarely maintains the pattern set out by classical Fourth Species (page 7), even for several bars. Usually the pattern of a note tied or repeated from a weak beat to a strong one, appears mixed with other rhythmic elements. Now and then it is heard several times as part of a repeated figure. The tied or repeated note almost always begins as a harmony note on a weak beat. On the following strong beat it may be a harmony note in another chord; then the harmony *must* change against the sustained note. Example 3 (a) shows this process.

Example 3



Although a tied note on a strong beat is sometimes consonant, as at 3(a), it's usually more effective and interesting to the listener if the sustained beat note is *dissonant* on the strong beat. This means that it becomes a suspension, as at Examples 3(b), (c), and (d). Each of them shows the three parts of a classical suspension: a consonant *preparation* on the previous weak beat, the dissonant *suspension* on the strong beat, and the *resolution* on the following weak beat.

The resolution may be direct as at 3(b). It may also be ornamented, like the examples at 3(c) ornamented with a downward auxiliary note *g* -- and at 3(d), where the ornament is a leap to another harmony note *c* before the resolution *f* is sounded. Naturally many other ornamental resolutions are possible; for review see *Expanded Introductory Harmony for Examination Candidates*, page 78.

On rare occasions a composition does maintain the tied Fourth Species pattern for several bars. Example 4 is from a choral piece by the Renaissance composer Orlandus Lassus (or Orlando di Lasso). Sung vigorously, as the composer intended, this is very effective. But usually the syncopated or tied pattern happens once or twice, and then other rhythms take its place; and it is usually more interesting and varied when there is more complete harmony, as with the four parts in Example 4.

The words have been omitted in Example 4. They have to do with rejoicing and celebration, so the repeated ties help to drive the music ahead and give it energy. Altogether the example contains eleven notes tied from weak to strong beats. Six of them are harmony notes tied to harmony notes, marked (a). The five suspensions, where the strong-beat note is dissonant, are marked (b) for simple resolutions, and (c) when the resolution is ornamented.

Example 4 *Jubilate Deo, omnis terra*

Orlandus Lassus



(a) Add a violin part, using the indicated rhythms.

(b) Fill in the missing parts, using mostly groups of sixteenths, with some eighths and dotted quarters.

A musical score for the song "The Rose Tree". The score is written for a single melodic line on a treble clef staff. The key signature is one flat (B-flat), and the time signature is 4/4. The melody consists of a series of eighth and quarter notes, with a final half note. The lyrics "The Rose Tree" are written below the staff, aligned with the notes. The score is divided into three measures by vertical bar lines.

(c) Add a bassoon part, using the suggested rhythms and maintaining the style.

Oboe

Bassoon

3/4

3/4

(d) Add a 'cello part using mostly eighth notes, but with some sixteenths.

Flute

'Cello

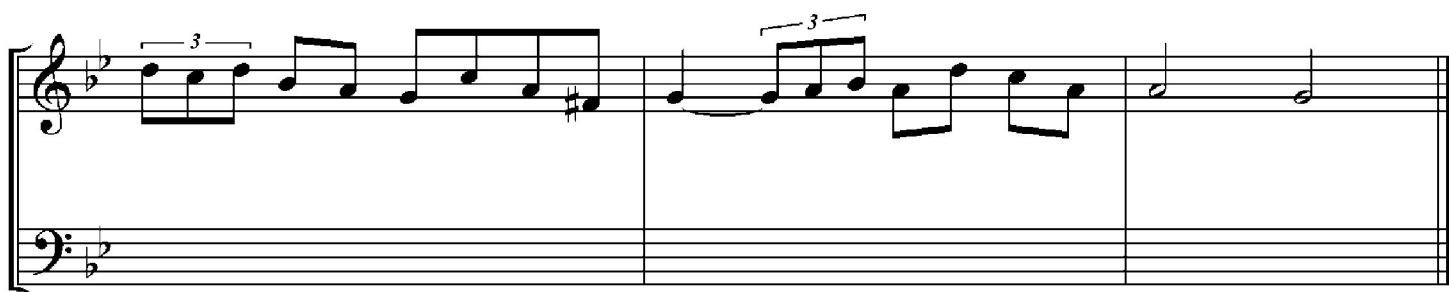
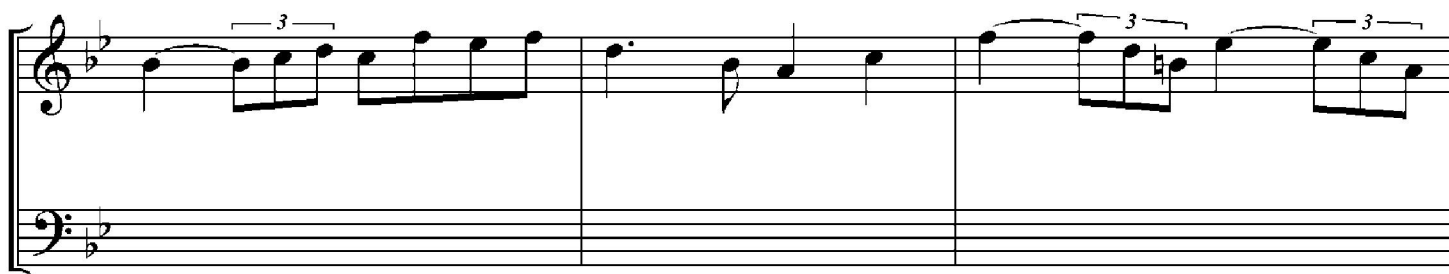
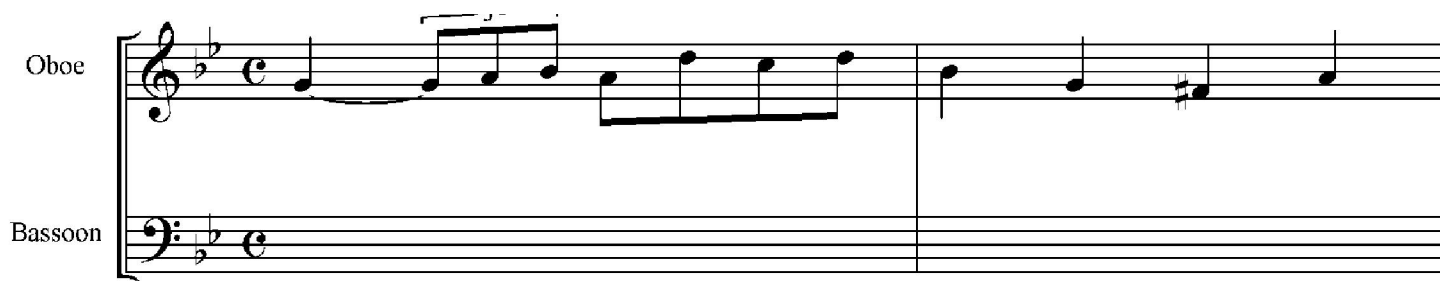
4/4

4/4

(e) Add a bassoon part, using the rhythmic ideas and figures from the given part, but in contrast to it.

Oboe

Bassoon



CHAPTER 5

STYLE IN FREE COUNTERPOINT

Consider these examples. The first two, by J. S. Bach, are highly organized. The voice parts are closely related, both being constructed out of the same elements. An idea introduced in one voice is very likely to appear later in another. Indeed Example 1.1 is actually a *canon*, in which one voice continuously imitates the other, an octave lower and a bar later.

What unifies the piece, however, is the rhythmic structure. The eighth-note figure **a**, which appears first in the upper voice in bar 1, is repeated in bar 2 by the lower voice. It returns as **a'**, with the same rhythm but different intervals, in bars 3 and 4. The figure **b**, largely composed of sixteenth-notes, is repeated in the same way. These elements, or *figures*, become building blocks from which Bach constructs his whole piece, even after it stops being in canon.

An idea, or figure, may also be repeated in the same part at a different pitch, as a sequence. In Example 1.2, a figure **b''**, derived from the rhythm of **b**, appears first in bar 21. It is then repeated sequentially in bars 22 and 23. Similarly the eighth-note figure derived from **a** appears in bar 21 in the lower voice, and is repeated sequentially in bars 22 and 23. The music is highly integrated

Example 1.1 *Invention in F*

J. S. Bach

Example 1.2 (Later in the same invention)

Example 2, on the next page, shows the opposite of Bach's careful musical organization: extreme disorganization, to the point of meaninglessness. There are no rhythmic elements which recur, and both voice parts seem to wander without much sense of direction. There are no recognizable figures or "building blocks" to give the music unity. This kind of writing might possibly pass an examination, because there is nothing "incorrect" in its grammar or harmony. But it would receive a low mark, and deservedly so, because it is very poor counterpoint, and very dull music.

Example 2

[illegible]

How can we avoid the kind of writing we see in Example 2 ? The first part of the answer is this:

The voice-parts in a piece of two-part counterpoint should show both *rhythmic unity* and *contrast*.

This sounds contradictory, so consider carefully what we mean.

Rhythm: Unity and Contrast

In a contrapuntal piece, as in a single melody, *rhythmic unity* relies upon *recognizable elements*. If the given part is mostly in half- and quarter-notes, there should be few if any sixteenth- or whole notes in the added part. Characteristic rhythms from one part often appear also in the other.

Rhythmic contrast requires that the two parts generally *avoid doing the same things at the same time*. It is all right for the two parts to travel in similar motion for a bar or so; but contrary motion should be normal.. In the same way, the parts may move together in the same rhythm for short periods, but most of the time if one part has longer notes, the other will have shorter ones. :J

There are contrapuntal styles in which one part moves steadily at a different rate from the other, but for now unity between the two parts is our aim. In this chapter the parts should share musical shapes and materials. The ideal examples of the style are Bach's two-part *Inventions*. Even if they aren't pianists, counterpoint students should try to become familiar with the *Inventions*. Borrow a score and a recording, and you can learn and enjoy at the same time.

Exercises

1. Complete the following two-part exercises, following the rhythm indicated in the added part.

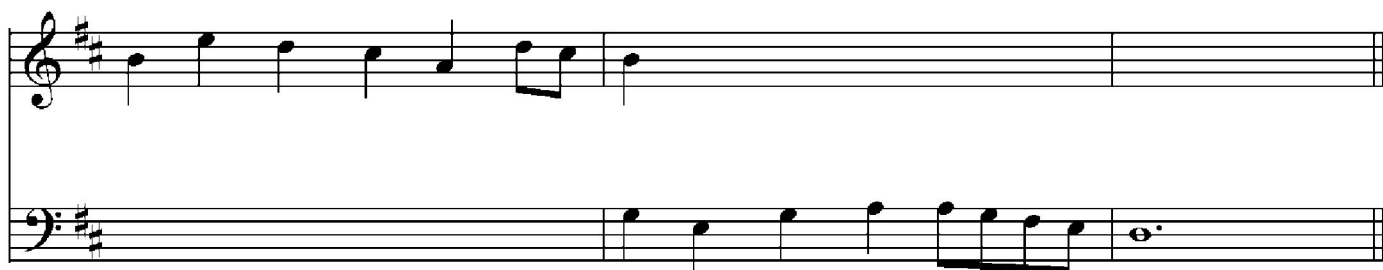
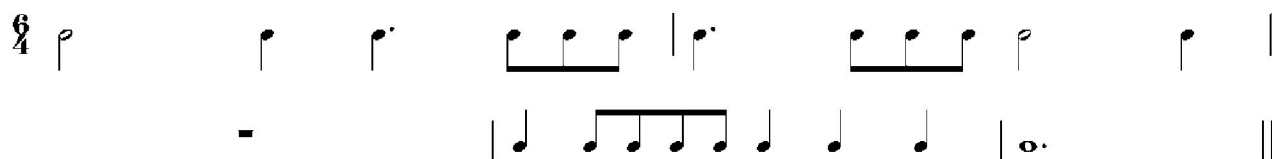
(a)

[illegible]

(b)



(c)



(d)

Exercise (d) consists of two systems of musical notation. Each system has a single staff with a common time signature 'C' and a key signature of two flats (B-flat and E-flat). The first system shows a melody line with eighth and quarter notes, and a bass line with eighth and quarter notes. The second system shows a melody line with eighth and quarter notes, and a bass line with eighth and quarter notes. The exercise is designed to be completed by adding a melody to the bass line.

2. Add melodies to the following basses, using the indicated harmony. Maintain rhythmic interest!

(a)

Exercise (a) consists of two systems of musical notation. Each system has a single staff with a 3/4 time signature and a key signature of two flats (B-flat and E-flat). The first system shows a bass line with quarter and eighth notes, and a treble line with a whole note. The second system shows a bass line with quarter and eighth notes, and a treble line with a whole note. The exercise is designed to be completed by adding a melody to the treble line.

Harmony for the first system:

I I⁶ IV _____ vii⁶ I⁶ I _____ V⁶ _____

Harmony for the second system:

$\frac{V^6}{\text{of vi}}$ vi vii⁶ I⁶ IV ii ii⁶ V _____ V⁶ I

(b)

i V⁶ i i⁶ ii⁶ ii V i⁶ i VI iv V I
of III

i V⁶ V⁶₅ i VI iv V⁴₂ ⁴/₃ V⁷ i iv ii i⁶₄ V i

(c)

V⁶ I vii⁶ I⁶ IV V I I⁶ IV IV⁶ I

vii⁶ V⁶ i V⁶ V vi ii⁴₂ V⁶ V I
of vi

(d)

V^6 I ii^6 _____ I^6 IV IV^6 V _____ V^4_2

I^6 I $\frac{vii^6}{\text{of } V}$ V V^4_2 I^6 I IV _____

ii V^6 I _____ $\frac{V}{\text{of } IV}$ IV^6 IV ii^6 I^6 V^6_5 I ii^6 V _____ I

CHAPTER 6

MORE ABOUT STYLE

There are four key words in this chapter:

1. *Figures* (or *Figural Development*, but we would then end up with five words!)
2. *Imitation* 3. *Sequence* 4. *Expansion*

Each of them appears in the following example by J.S.Bach. One of the writer's teachers, the late Eric Rollinson, summed up much of contrapuntal writing this way: Get a figure and develop it!

Since the *development* of a figure is almost sure to involve some *imitation*, and the rhythmic expansion of the figure; and since it is quite likely to involve *sequence* too, his advice implies attention to all four of our key words.

Example 1: *Wo soll ich fliehen hin*

Johann Sebastian Bach

The musical score is in G major, 4/4 time, and consists of two systems of two staves each (treble and bass clef). The first system contains measures 1 through 6, and the second system contains measures 7 through 12. Brackets and labels identify specific rhythmic and melodic figures:
 - Measure 1: Treble staff has figure 'a' (quarter note G, eighth notes A-B, quarter note C); Bass staff has figure 'e' (quarter note G, eighth notes A-B, quarter note C).
 - Measure 2: Treble staff has figure 'c' (quarter note D, eighth notes E-F, quarter note G); Bass staff has figure 'a' (quarter note D, eighth notes E-F, quarter note G).
 - Measure 3: Treble staff has figure 'a' (quarter note A, eighth notes B-C, quarter note D); Bass staff has figure 'c' (quarter note A, eighth notes B-C, quarter note D).
 - Measure 4: Treble staff has figure 'a' (quarter note B, eighth notes C-D, quarter note E); Bass staff has figure 'a' (quarter note B, eighth notes C-D, quarter note E).
 - Measure 5: Treble staff has figure 'a' (quarter note C, eighth notes D-E, quarter note F); Bass staff has figure 'a' (quarter note C, eighth notes D-E, quarter note F).
 - Measure 6: Treble staff has figure 'a' (quarter note D, eighth notes E-F, quarter note G); Bass staff has figure 'a' (quarter note D, eighth notes E-F, quarter note G).
 - Measure 7: Treble staff has figure 'a' (quarter note E, eighth notes F-G, quarter note A); Bass staff has figure 'a' (quarter note E, eighth notes F-G, quarter note A).
 - Measure 8: Treble staff has figure 'a' (quarter note F, eighth notes G-A, quarter note B); Bass staff has figure 'a' (quarter note F, eighth notes G-A, quarter note B).
 - Measure 9: Treble staff has figure 'a' (quarter note G, eighth notes A-B, quarter note C); Bass staff has figure 'a' (quarter note G, eighth notes A-B, quarter note C).
 - Measure 10: Treble staff has figure 'a' (quarter note A, eighth notes B-C, quarter note D); Bass staff has figure 'a' (quarter note A, eighth notes B-C, quarter note D).
 - Measure 11: Treble staff has figure 'a' (quarter note B, eighth notes C-D, quarter note E); Bass staff has figure 'a' (quarter note B, eighth notes C-D, quarter note E).
 - Measure 12: Treble staff has figure 'a' (quarter note C, eighth notes D-E, quarter note F); Bass staff has figure 'a' (quarter note C, eighth notes D-E, quarter note F).
 Labels 'a' (inverted), 'b', 'b'', 'c', 'd', 'd'', and 'a'' (inverted and extended) are also present, indicating variations and imitations of the principal theme 'a'.

Figural development

In Example 1 the principal theme **a** consists of two rhythmic elements which we have labelled **b** and **c**:

b:  c: 

It is followed immediately by an altered form of **a**, which is labelled **a'**. The most noticeable difference between the two versions is that **a'** is *inverted*; rising intervals in Bar 1 become falling ones in **a'**, so that the melodic shape is turned upside down.

There is also another difference between **a** and **a'**. **a'** replaces the components **b** and **c** with altered versions which are labeled **b'** and **d**.



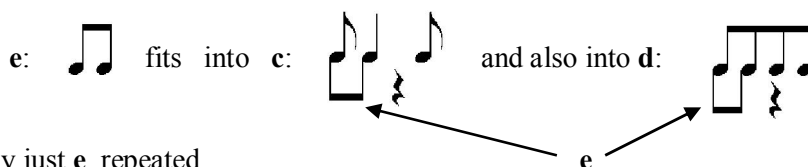
Each of these variants has added some notes to the original figures. First, **b'** begins on the beat, without the rest which began the original **b**. Then in **d** the syncopated quarter note, which gives **c** its character, is broken into two eighth notes. These alterations to the combined original **a** are simple examples of the *development* of a figure. Notice that while **a'** is certainly different from **a**, and has its own rhythmic and melodic feeling, *it remains quite recognizable*. If it didn't we would have not development, but merely a new figure.

Another kind of development applied to **a** in Example 1 comes in the last three bars of the lower voice, where **a'** is not only inverted, as it was in bar 2, but also *extended*. The extension of **a'** is created by adding an inverted version of **c'** to **a'**, so that its components now read **b' - d - c**. This way its length is increased from one bar (four beats) to six beats.

Relationships between figures

Bach not only subjects his rhythmic figures to development: by sharing common elements, he also links them to other figures. At the start of Example 1 the lower voice has two eighth notes dropping an octave, labeled as **e**. If it didn't stand alone this way at the beginning, **e** probably wouldn't deserve a label of its own, because it doesn't appear again on its own.

However **e**'s real function is as a building block for longer figures. Both **c** and **d** can be viewed as *expansions* of **e**:



Indeed **d** is really just **e**, repeated.

A further example of development comes in the last half-bar of the example, at **d''**. Here the second eighth note of **d** is replaced by two sixteenth notes. This change gives the music more forward movement into the cadence.

Imitation

In Example 1 the figure **a** appears first in the upper voice. When the lower voice enters half a bar later, it is with the same melody an octave lower. This procedure, *imitation*, is the essence of Bach's contrapuntal style. Our interest in music is sustained largely by *recognition*. A composer, who thought of something entirely new in each bar of a piece wouldn't impress us with her or his originality. On the contrary, we would soon be bored by music which seemed to run on without sense of direction or recognizable landmarks.

Actually the first two bars of Example I are a special kind of imitation. They are *in canon* -- that is, the upper voice is reproduced half a bar later by the lower voice. After **a** in the upper part is answered by **a** in the lower part, the canon continues with **a'** in the upper part, answered by **a'** in the lower one.

Bach doesn't intend to write a strict canon in this piece. For convenient examination, Example 1 is reprinted on the next page.

Example 1. Reprinted for convenient reference

Sequence

Instead of continuing in canon after bar 2, Bach alters the conclusion of the answering, lower-voice **a'**. Like its upper-voice *leader*, the lower-voice *follower* **a'** consists of **b'** followed by the four eighth notes of **d**. At the start of bar 3, however, Bach forms **d** into a new melodic shape, designed so that it easily falls into a *sequence*. Accordingly that lower-voice **d** and the two which follow it sequentially have been given a special label, **d'**.

With the D natural which ends bar 2 (upper voice), Bach has modulated for the moment into the relative major key of G. Notice that the sequential bass **d'** supports chords a fifth apart: in G major the three appearances of **d'** support these chords: vi - ii, V - I, and IV - vii⁷.

Most sequences follow semi-cadential progressions like these. It isn't always necessary to include a melodic augmented fourth as Bach does (c to f sharp in bar 4)! Indeed, for examination purposes, and generally if your ear isn't as good as Bach's (and whose is?), be very careful of such a leap even when it's justified by being part of a sequence.

There are very few rhythmic figures possible in this style, that weren't used at some time by J. S. Bach. Students couldn't have any better training than the analysis of his work. In the space available we can only scratch the surface; but the following examples show more of the use of figuration and figural development in his music.

The Process of study: methods and goals

Counterpoint textbooks are written in the first place to discuss the *mechanics* of music. Most of a student's work in harmony or counterpoint has to do with the mastery of musical nuts and bolts, and the details of their assembly. This is inevitable; when we're learning any complex skill we have to start by breaking it down into its components.

In the same way, as we all know, beginning drivers don't learn the rules of the road, and safe braking at high speed, and parallel parking all at once. Even though all those skills are needed by a fully trained driver, each of them has to be mastered separately at first. As we become more comfortable with each of the elements, they can gradually be integrated into a complete and coordinated package. The same thing is true of learning to play an instrument, or how to write good counterpoint.

But the learning process shouldn't hide the fact that in the end, *music is expressive*. We value it for its emotional and artistic effect, and not primarily for the technical skill of the composer. So it's useful to know that the next example, an organ piece by Bach, is based on a chorale, *Alle Menschen müssen sterben* (*All humankind must die*). The poem starts with this unhappy fact, but then goes on to portray death as an entry to a better and fuller life. The images in the hymn are comforting and peaceful. .

The chorale melody, written by another composer years before Bach used it, floats above a texture woven out of a single figure. Expressively, this figure reflects the chorale text with a rhythm in which we can hear the muffled drums of a stately funeral procession. The ongoing texture moves gently and insistently, with the calming effect of a mantra.

Example 3 *Alle Menschen müssen sterben*,

J.S.Bach

The musical score for Example 3, J.S. Bach's organ piece "Alle Menschen müssen sterben", is presented in three systems. The first system shows a treble staff with a melody and a bass staff with a complex texture. The texture is composed of several rhythmic figures labeled 'a', 'a'' (extended), 'a'''', and '(a)'. The second system continues the texture, and the third system concludes the piece. The labels 'a', 'a'' (extended), 'a'''', and '(a)' are used to identify specific rhythmic figures and patterns within the texture.

The left hand part (middle of the three staves) begins with the last part of the figure **a**, the two eighth notes. Then it runs through this pattern: **a a a' a a a a'** (the last figure is incomplete in the example).

At the same time the organist's feet (the bass line) are playing this pattern: **a a a'' a a a a''**
 The three versions of **a** produce their results in different ways.

The original **a** has one beat of sixteenth rest and notes, and one of eighth notes: 

a' inserts an extra beat of four sixteenth notes: 

a'' continues an extra beat by adding a quarter note: 

a''' expands the two eighth notes of **a** into quarter notes: 

Simple as it is, this interweaving of a figure continues throughout to produce one of Bach's most beautiful, and thoughtful, short pieces. It takes time and effort to follow the organization and relationships of these figures, but it's worth doing. Only when the student has understood Bach's methods, and seen them at work, can s/he expect to use them freely in her or his own work. Our consideration continues with Example 3.

Example 3 *Brandenburg Concerto No.3, in G*

J.S.Bach



The musical score for the opening of J.S. Bach's *Brandenburg Concerto No. 3, in G major* is shown. The score is in 3/4 time and features three staves: Violin I, Violin II, and Bass. The music is characterized by rapid sixteenth-note passages. Various musical figures are labeled with letters and primes above or below the notes. Figure **a** is the initial motif. **a'** and **a'''** are variations. **b** and **b''** are other motifs. **c** is a new figure that expands the range of **a**. **d** and **d''** are further developments. **b'''** is labeled as "incomplete". The score shows how these figures are interwoven and expanded throughout the opening.

In this well-known opening the upper strings of the orchestra lead with repetitions (and development) of the figure **a**, which begins the concerto. Notice how smoothly the expansion of **a** into **a'** establishes a new figure, **c**, which expands in range (but not rhythmically) in the third bar; and how Bach then uses the rhythm of the third, fourth and fifth notes of **a** as a new figure (**d**, in bar 4) which in turn he expands (into **d'**, bars 4 and 5). Though the figures are different, they are all linked.

While the upper strings are developing **a** and then **d**, the lower strings (middle and bottom staves) start off with a simple group of eighth notes (**b**). Either as it first appears, with an anacrusis or pickup eighth note, or in the form without the anacrusis marked **b'**, this seems to be pretty tame, unpromising stuff. That is, it seems that way until Bach begins to develop it in bar 2.

On the lowest staff ('cellos and double basses), the development in bar 2 seems very simple. To create **b''**, Bach has simply replaced the second eighth note of **b** with a pair of sixteenths. However there's more to this than appears at first, because it echoes the first strong beat of **a**, with the figure which is later labeled **d** being incorporated in **b'**.

In the meantime, on the middle staff (violas), Bach reveals other developments of **b**. At **b'''** he keeps the first two eighths, while replacing the third and fourth ones with four sixteenths; and for good measure he extends the figure by a beat, with two more eighth notes. Notice also how this first appearance of four sixteenths together leads into the similar pattern we have labelled **c**, in the violins (upper voice). Having expanded **b**, Bach shortens it by dropping the first note, replacing it with an eighth rest, at **b'**. This leads to more appearances of **d** and **b'**. The basic ingredients of this example are three figures, **d**, **c**, and **b**; everything else is constructed from them.

To realize just how effective this rhythmic interplay is, try this: have three people each tap the rhythm of one line, so you can feel how the rhythmic energy passes back and forth among the parts. Or, less satisfactorily but still usefully, tap one line's rhythm with one hand, and another's rhythm with the other hand. And of course find and listen to a recording of the whole glorious piece.

Exercises

1. Complete these exercises, using the suggested figuration.

(a) Use the figure 



(b) Use the figure



A musical score for the song 'The Rose Tree'. The score is written for a single melodic line in G major, 2/4 time. The melody is presented on a single staff with a treble clef. The key signature has one sharp (F#), and the time signature is 2/4. The melody consists of 16 measures, grouped into four measures per line. The notes are: G4 (quarter), A4 (quarter), B4 (quarter), A4-G4 (beamed eighth notes), F#4 (quarter), E4 (quarter), D4 (half), C4 (half), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (half), D3 (half), C3 (half), B2 (half). The final measure contains a whole note G2.

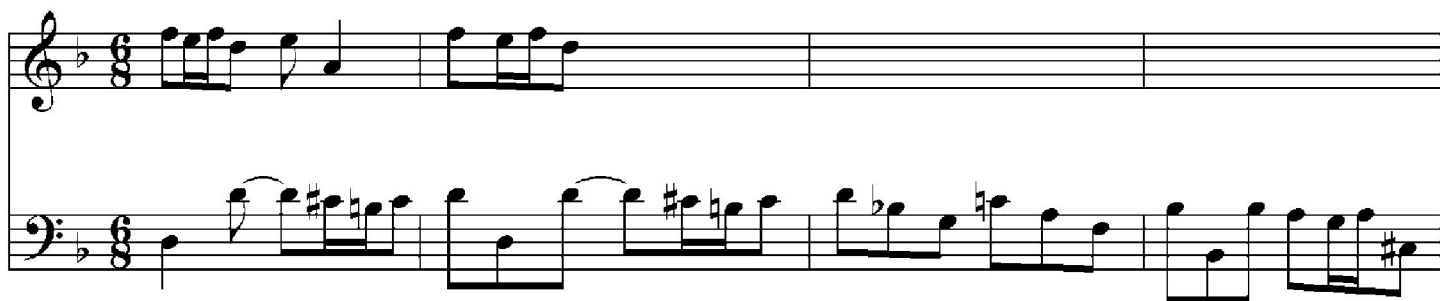
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(c)

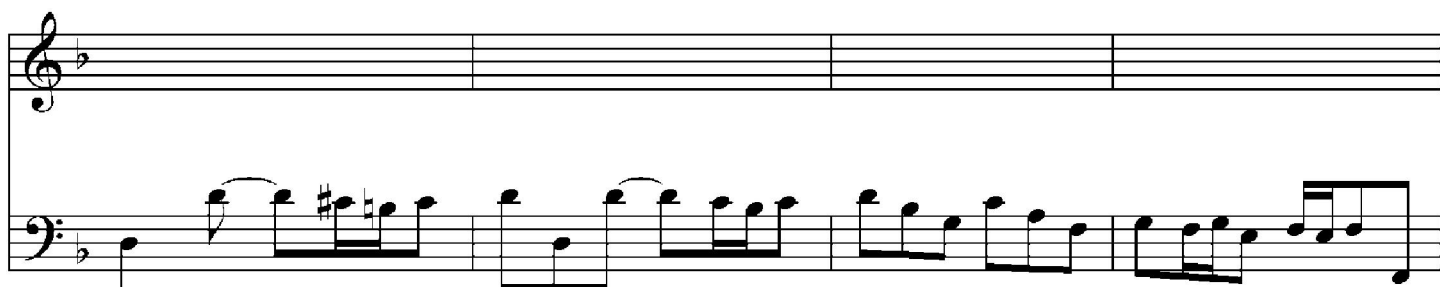
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A musical score for the song 'The Rose Tree'. The score is written on two staves: a treble staff and a bass staff. The key signature is one sharp (F#), and the time signature is 4/4. The melody is primarily in the bass staff, featuring a series of eighth and sixteenth notes. The treble staff is mostly empty, with a few notes in the first measure. The score ends with a double bar line and a repeat sign.

(d) Complete the upper part.



The first system of musical notation consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat) and a time signature of 6/8. It contains two measures of music: the first measure has a quarter note G4, an eighth note F#4, and a quarter note E4; the second measure has a quarter note D4, an eighth note C4, and a quarter note B3. The lower staff is in bass clef with the same key signature and time signature. It contains four measures of music: the first measure has a quarter note G2, an eighth note F#2, and a quarter note E2; the second measure has a quarter note D2, an eighth note C2, and a quarter note B1; the third measure has a quarter note A1, an eighth note G1, and a quarter note F1; the fourth measure has a quarter note E1, an eighth note D1, and a quarter note C1.



The second system of musical notation consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat) and a time signature of 6/8. It is empty. The lower staff is in bass clef with the same key signature and time signature. It contains four measures of music: the first measure has a quarter note G2, an eighth note F#2, and a quarter note E2; the second measure has a quarter note D2, an eighth note C2, and a quarter note B1; the third measure has a quarter note A1, an eighth note G1, and a quarter note F1; the fourth measure has a quarter note E1, an eighth note D1, and a quarter note C1.

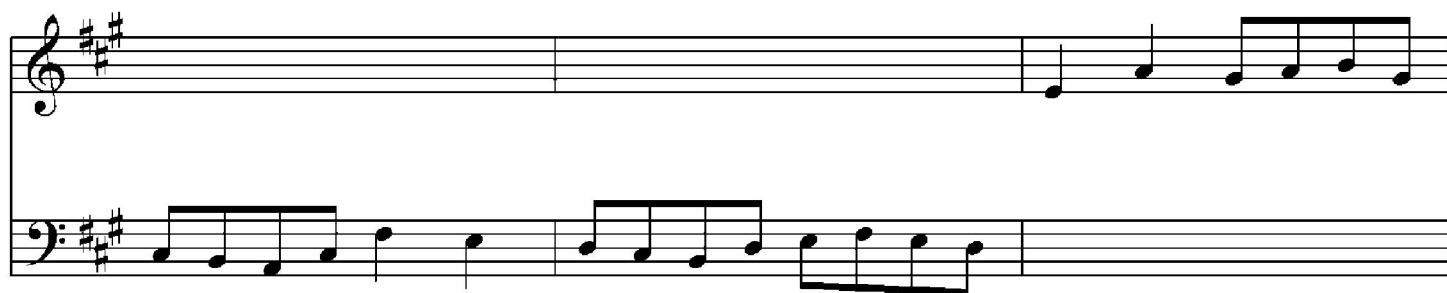
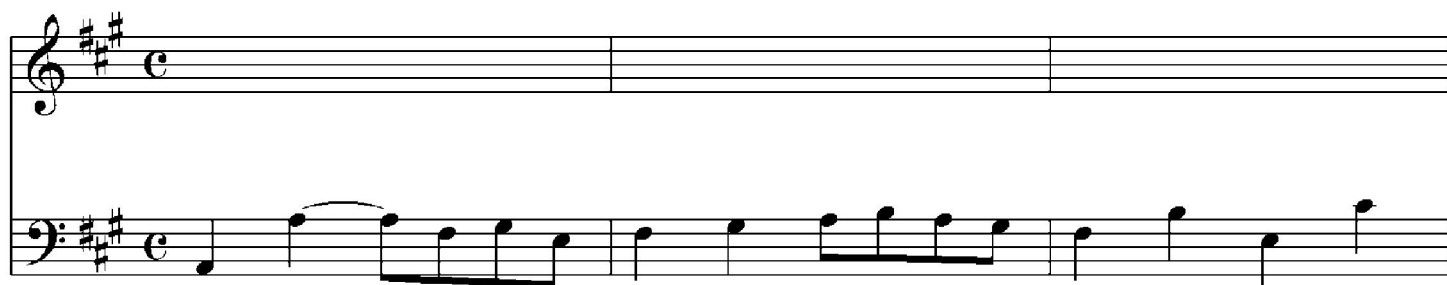


The third system of musical notation consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat) and a time signature of 6/8. It is empty. The lower staff is in bass clef with the same key signature and time signature. It contains four measures of music: the first measure has a quarter note G2, an eighth note F#2, and a quarter note E2; the second measure has a quarter note D2, an eighth note C2, and a quarter note B1; the third measure has a quarter note A1, an eighth note G1, and a quarter note F1; the fourth measure has a quarter note E1, an eighth note D1, and a quarter note C1.



The fourth system of musical notation consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat) and a time signature of 6/8. It is empty. The lower staff is in bass clef with the same key signature and time signature. It contains four measures of music: the first measure has a quarter note G2, an eighth note F#2, and a quarter note E2; the second measure has a quarter note D2, an eighth note C2, and a quarter note B1; the third measure has a quarter note A1, an eighth note G1, and a quarter note F1; the fourth measure has a quarter note E1, an eighth note D1, and a quarter note C1.

(e) Try this figure



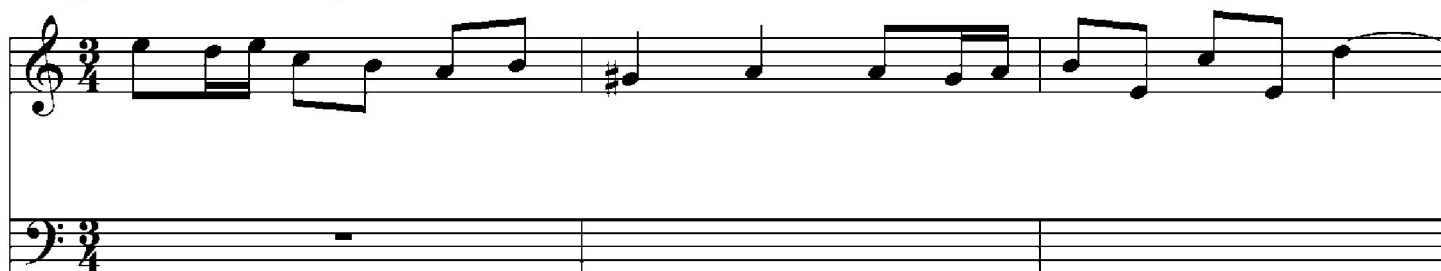
2. More exercises

(a) Fill in the missing notes at three brackets, maintaining the given style.

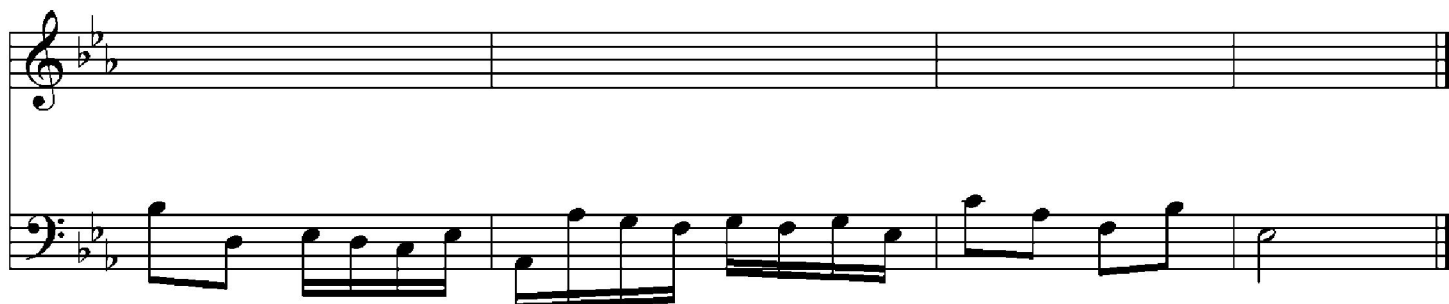
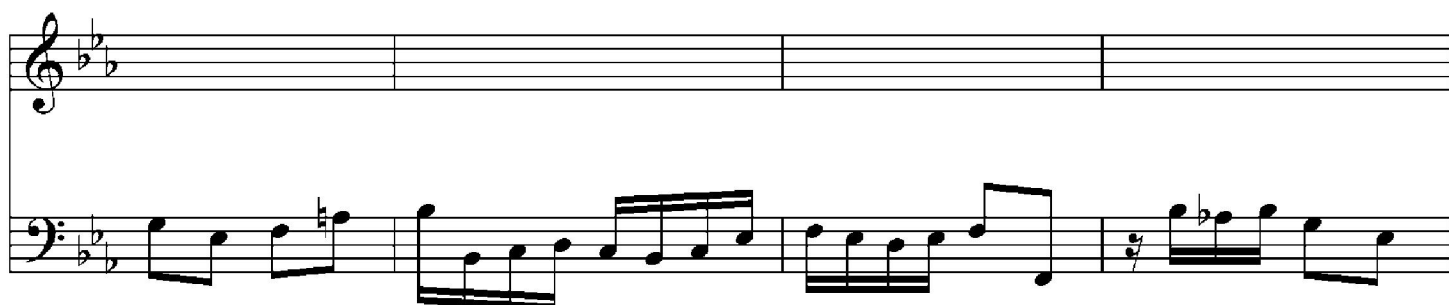
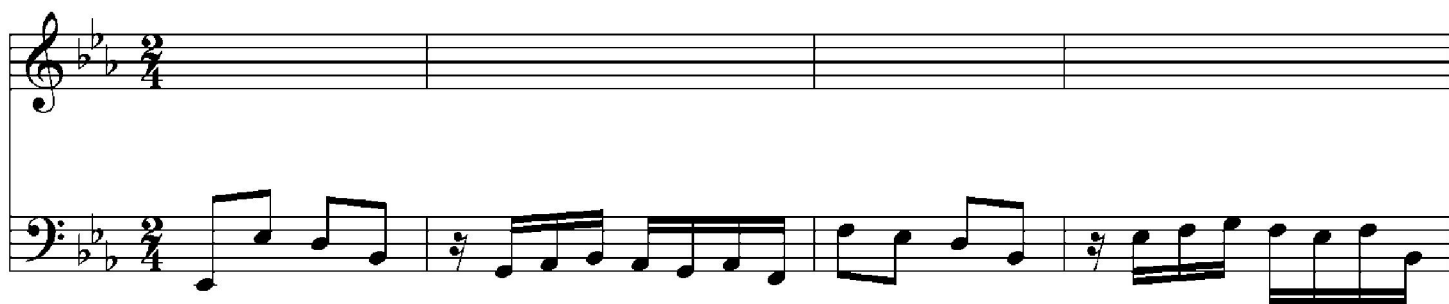
The exercise is in 4/4 time and B-flat major. It consists of four systems of staves. The first system has a treble staff with a melodic line and a bass staff with a bass line. The second system continues the melody and bass line. The third system continues the melody and bass line. The fourth system continues the melody and bass line. The exercise is divided into seven numbered brackets for completion:

- Bracket 1: Treble staff, measures 10-11.
- Bracket 2: Treble staff, measures 12-13.
- Bracket 3: Treble staff, measures 14-15.
- Bracket 4: Treble staff, measures 16-17.
- Bracket 5: Treble staff, measures 18-19.
- Bracket 6: Treble staff, measures 20-21.
- Bracket 7: Treble staff, measures 22-23.

(b) Part of this one will go in canon--but not all of it!



(c) Add an upper voice, in the style of the given part.



CHAPTER 7

IMITATION

In the late Renaissance (about 1525-1600) composers developed a very sophisticated structural system, in which *imitation* was the basic principle of organization. On the next page is the opening of a two-voice motet by the great Flemish composer Orlandus Lassus*. Note that each group of words is set to a short tune, sing by one voice—and responded to by the other. These short melodic settings of part of a sentence are often called “points of imitation” -- because after one voice part sings the melody, the other joins in, imitating it. If you can, arrange to sing this music with a friend, or play it as a duet. This is the best way to hear the interweaving of the parts, and the way entries answer each other.

The first part of the motet consists of three phrases, with these Latin words from the Bible (1 Corinthians, 2:9)

<i>Oculus non videt</i>	No eye has seen,
<i>Nec auris audivit,</i>	nor any ear has heard,
<i>Nec in cor hominis ascendit</i>	nor has it arisen in the heart of mankind,

At the beginning the words *Oculus non videt* are sung, in the soprano part, to a first "point of imitation". It is answered a fifth below by the altos. The imitation is exact; the alto rises and falls exactly as the soprano did.

The second phrase, *nec auris adivit* begins with strict imitation, this time an octave below. The alto follows the soprano exactly to the end of the word *auris*, but then Lassus' writing becomes free. There is a hint of additional imitation as he begins the word *audivit*, both voices rising stepwise from A, but it is only a hint.

The third phrase combines imitation on two "points": one at *nec in cor hominis*, answered a seventh below, and the second at the last word *ascendit*, a fifth below. The answers follow closely, only half a bar after the leading voice.

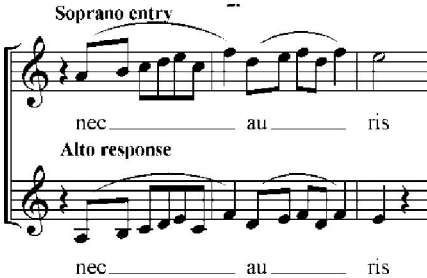
Examine the relationship between the soprano and alto versions:

1. 

Perhaps it's even clearer this way, with both starting same time. The alto is simply a transposition of the soprano:



The second point of imitation, *nec aurum audivit*, shows the same kind of similarity, although separated by a seventh.

2. 

The third point of imitation begins with *nec in cor hominis*, which has its own point of imitation, and then continues with the word *ascendit* (*arise* or *ascend*), to a melodic shape which rises in successive leaps. The rhythm of the first point of imitation doesn't show clearly with modern notation; it is actually in triple time. With the two voice-parts starting at different times, this creates a fascinating set of cross-rhythms. This, too, can be part of good counterpoint.



* See box on next page

***Orlando di Lasso** (1532-94) is often called by the Latin form of his name, Orlandus Lassus, or the French form Roland de Lassus. Born in Flanders (Belgium) he worked in Rome, visited France and England, and ended his career at Munich. With Palestrina and Victoria, he achieved fame across Europe, and his music is still performed

The two points of imitation in the third phrase (in 3b, the box shows how Lassus ended the imitation in each voice):

3a

Soprano entry

nec in ___ cor ho mi-nis

Alto response

nec in ___ cor ho - mi-nis

3b

as ___ cen

as ___ cen

Finally,
the first half of the motet, showing how the entries
interact to make a musical whole :

Example 1 Motet, *Oculus non videt*

Orlandus Lassus

1. 2.

Soprano

O - cu - lus non vi ___ dit, nec ___ au ___

Alto

O ___ cu lus non vi ___ dit, nec _

1. 3a

x

ris _ au - - - di ___ vit, nec in cor ho

y

au ___ ris au ___ di ___ vit, nec in

2. 3b

___ mi - nis as ___ cen ___ dit

cor ho - mi - nis as ___ cen ___ dit

3a 3b

As the second part of the motet begins, the soprano voice gives up the leading role it has held since the beginning. Now the alto is the leader, and it presents the point of imitation numbered 4. The answer in the soprano begins on the same note, *but it is inverted* (Figure 4'). As always with successful imitative writing, even though the figure is altered it remains perfectly recognizable--after all, to risk a pun, that's the *point* of a *point of imitation*.

The words read: *His, qui diligunt illum*

Such things as God prepares for those who love him.

The musical score is presented in two systems, each with two staves. The lyrics are in Latin, and the musical notation includes various markings such as '4', '4'', '5', '5'', 'x', 'y', 'y' (inverted)', and 'x'.

System 1:

- Staff 1: *quae prae pa ra - vit De - us*
- Staff 2: *quae prae pa - ra - vit De us*

System 2:

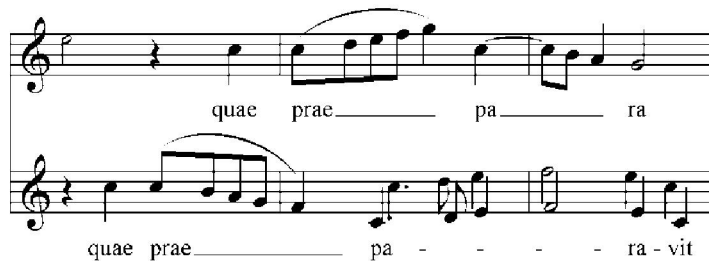
- Staff 1: *his, qui di li - gunt il lum,*
- Staff 2: *his, qui di li - gunt il lum, qui*

System 3:

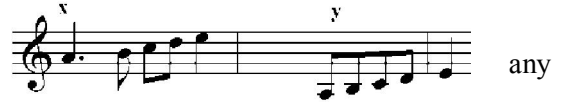
- Staff 1: *qui di li - gunt il lum.*
- Staff 2: *di li gunt il lum.*

Notice that at 4 Lassus breaks a "rule" about good part-writing. The alto figure descends scalewise from C to F, and then leaps down a further fourth, so that a leap follows four steps in the same direction.

He has done this because, if the alto returned to the upper C the two parts would meet and cross awkwardly in the second bar. Both soprano and alto begin with C, and return to C, but in the alto the C is transposed down an octave to avoid the parts meeting and crossing, and also because without the transposition the altos would have to sing the uncomfortably high notes E and F.



The next phrase, and the second staff-system, begin with the fifth point of imitation, at *His, qui diligunt illum*. This time the soprano again becomes the leader, and the imitation is direct (that is, not inverted), at the octave. The hint of imitation which we saw in the second system of the previous page is worked out here, at *x* and *y*. Note that the difference in duration between the first note of *x* and that of *y* doesn't make the figure unrecognizable, though much more rhythmic change than this would tend to conceal the imitation. In case the change occurs *within* the working out of a longer imitation. Like an internal rhyme in a poem, it doesn't have to stand alone.



The last phrase of the motet repeats the point of imitation numbered 5, without its separated first note for the word *his*. This time the alto leads, and the imitation is at the fifth above, but the working-out is extended. The secondary imitation which was hinted at on the earlier page, and first worked out at *x* and *y*, now extends and repeats those figures. Expressively, this development builds up to a strong conclusion. In Gregorian chant a long *melisma* (a flowing vocal passage of many notes on one syllable) is called a *jubilus*, a rejoicing. It has the same effect here.

Structure in Renaissance music

Renaissance composers used the same structural method in music for four or more voices as well, as in the example by Tomas Luis da Vittoria* which occupies the next page. It begins in a sequence very much like what would be called a fugue in the next century. A theme is presented by one voice, and answered a fifth below by a second voice (this makes it a *subdominant answer*; *dominant answers* a fourth below or a fifth above are more usual in the Baroque, but the subdominant response is not unknown). The third voice then enters an octave below the first one, and the fourth voice answers it, as the second one did. A real fugue would then go on develop and vary this material, but that approach had not yet been invented. This piece hints at it, because the second point appears altogether seven times. Within a couple of generations this would lead to the development of figures, but Victoria doesn't continue the process.

Instead, he treats the opening as a point of imitation presented by each voice in turn, and followed immediately by a second point of imitation. In this motet the first point of imitation (at the words *O magnum mysterium*, (Oh, great mystery) appears in the soprano and alto parts in the first staff-system. After a quarter-rest the second point (*et admirabile sacramentum*, and admirable sacrament) follows the first, starting at bar 4, beat 4 in the soprano, and at bar 6, beat 2 in the alto. The bass and tenor entries follow the same pattern, starting with the tenor entry (point No. 1) in bar 8, beat 3. As these entries are presented, the soprano and alto continue with free writing.

* **Tomas Luis da Vittoria** (1511-1572), born in Spain, spent the early part of his career in Rome, and may have studied with Palestrina. When he was forty-eight, he returned to Spain, and worked in Madrid until his death. Many musicians would group him with Lassus, Palestrina, and Byrd as the four greatest composers of the Renaissance. His music, all of which was composed for the church, is vivid, passionate, and full of intense feeling.

Example 2. Motet, *O magnum mysterium*

Tomas Luis da Victoria

1. O mag-num my-ste-ri - um, et ad-mi-ra-bi - le sac-ra-men-

O mag - num my - ste-ri-um, et admi - ra - bile sac-

tum, O mag - num mys-

ra - men tum, 1. O mag - num my - ste

O mag - num my - ste - ri - um, et ad - mi -

O mag - num my - ste - ri -

1.

te - ri - um, 15 et ad - mi - ra - bi - le, et ad - mi - ra - bi -

- ri - um, et ad - mi - ra - bio - le sac - ra - men tum, et ad - mi - ra - bi -

ra - bi - le sac - ra men tum. et ad - mi - ra - bi -

um, et ad - mi - ra - bi - le sac - ra - men - tum, et ad - mi - ra - bi -

2.

le sac - ra - men tum, 20 ut a - ni - ma - li - a

le sac - ra - men - tum, ut a - ni - ma - li - a, ut a - ni - ma - li - a

le sac - ra - men - tum, ut a - ni - ma - li - a, ut a - ni - ma - li - a

3.

The bass statement of point No.2, in bars 13 to 15, is answered by the sopranos with the same point, in bars 15 and 16. Here Lassus comes close to the later technique of figural development, because he repeats the first part of point

No.2 in bars 16-18. At the same time the tenors, after a long melisma in bars 14 and 15, present point No.2 yet again.

At the pickup to bar 20 Victoria introduces his third point of imitation (*ut animalia...*, that animals..), sung first by tenors and basses together, then answered by sopranos and altos together. At this point our excerpt breaks off.

When composers of Victoria's period wrote for instruments without voices, they used the same "point of imitation" technique. Without a poem to give the music structure and unity, however, the results are often like the horseman who rode off in all directions. They don't seem to get anywhere, and the results can be shapeless or even confusing, no matter how beautifully the various voice-parts combine. Successful instrumental counterpoint needed a different technique, that of *imitation and development*.

As we have suggested above, instrumental pieces from this period, constructed with successive, different points of imitation, often tend to wander (although there are a number of wonderful exceptions). Presenting a succession of new ideas with nothing in particular to tie them to any previous ones is not the best road to structural unity. The search for purely musical unity, instead of verbal-musical unity, was already going on in Victoria's time, and it led to the emergence of the more instrumental style we call the Baroque.

Baroque Counterpoint, Imitative and Non-imitative

Although the prevailing style had become more instrumental, composers in the Baroque period (about 1600-1750) also often use imitation. In its strictest application it produced the fugue, a form (or structure) which we consider in Chapter 9 of this book. It also plays an important role in many other forms, however. We have already seen it at work in one Bach *Invention*; here is another example, which begins imitatively.

Example 3 *Invention in G*

J.S. Bach

The musical score for J.S. Bach's *Invention in G* (BWV 999) is presented in two systems. The first system shows the initial four measures. Brackets labeled 'a' and 'b' identify specific phrases: 'a' is a four-beat figure in the treble staff, and 'b' is a three-beat figure in the bass staff. The second system continues the piece, showing how these phrases are repeated and developed. Brackets labeled 'c', 'c'', 'd', and 'e' identify further phrases and their variations. The score demonstrates the technique of imitative counterpoint, where a single melodic idea is repeated in different voices or instruments.

By now the student won't have much trouble in tracing the imitation through the four-beat figure **a**, and the three-beat one **b**. Then Bach abandons strict imitation. Instead he accompanies one figure with another, and extends them in sequences.

The first three notes in the upper voice of bar 4 are ambiguous. From one point of view, they are the completion of **b**, from the previous bar; but a second look shows that this **b** interlocks with, or overlaps, the new figure **c**, which actually begins on beat 1 of bar 4. Figure **c** is presented in a sequence, accompanied by its own variant **c'**, and another sequence on the combined figures **d** and **e** completes the excerpt.

To sum up imitation, here are two important things to remember.

1. Imitation is *primarily rhythmic*. Later entries must match the rhythm of the first one. They may sometimes vary its intervals.

2. At the beginning of a piece, a delayed entry *must* be imitative.

But as the last example suggested, not all Baroque counterpoint is imitative. Such simple pieces as the Minuets and other small dance movements played by piano students in their early years are also contrapuntal. They rely on good melodic lines in both parts, a clear phrase-structure, and regularity of rhythm to keep the texture interesting. Some of the greatest composers of all time - Bach, Handel, and Mozart to name just three -- have found it worthwhile to write deceptively simple pieces in two-part counterpoint.

The next two examples demonstrate this approach. To enable the reader to trace figuration throughout the examples without turning pages, each of them has been allotted a full page. Notes on their structures are below.

Example 4 *Minuet in F*

J.S. Bach

The fourth figure, **d**, two bars long, combines quarter-note movement taken from the bass, with a repeated note which implies a suspension. While the upper voice is entirely constructed from these figures, the bass proceeds mainly in quarter notes. In all but three of the piece's twenty-four bars, this motion provides a background rhythm, and a strong harmonic foundation, for the more complex upper voice.

The musical score for J.S. Bach's Minuet in F is presented in four systems, each with a treble and bass staff. The key signature is one flat (B-flat). The score is annotated with letters **a**, **b**, **c**, **d**, **c'**, and **c (extended)** to identify specific rhythmic figures. Bar numbers 5, 10, 13, and 20 are marked in diamonds. The first system shows the initial entry of figure **a** in the upper voice and figure **b** in the bass. The second system shows figure **c** in the upper voice and figure **a** in the bass. The third system shows figure **d** in the upper voice and figure **b** in the bass. The fourth system shows figure **d** in the upper voice and figure **c (extended)** in the bass.

Example 5 *Slow movement from a Voluntary***John Stanley**

In one place, bars five and six, the composer uses imitation so strictly that the two parts are briefly in canon. Apart from that, however, the two parts are quite independent. The upper one is built from the figures (1) and (2) in the first two systems, then (3), and then moves into running sixteenth notes. Each of these upper-voice figures has an attached accompanying figure in the lower voice: (1) and its extension as (1a), and (3a), with the canonic appearance of (1) separating them. The upper-voice sixteenth notes beginning in bar 11 are accompanied by (4), which is rhythmically derived from (1a).

Two other brief figures are derived or developed from the second half of (1): (x) in the upper voice, in bar 4, and (y) in the lower voice at bar 15. The result, with very little imitation between parts, is nevertheless highly organized and full of rhythmic interest.

The musical score consists of five systems, each with a treble and bass staff. The key signature has one sharp (F#) and the time signature is 3/4. The score is annotated with various figures and measures:

- System 1 (Bars 1-4):** The upper voice begins with figure (1) in bars 1-2, followed by figure (2) in bars 3-4. The lower voice provides accompaniment with figure (1a) in bars 1-2 and (3a) in bars 3-4. A small figure (x) appears in the upper voice in bar 4.
- System 2 (Bars 5-8):** The upper voice continues with figure (1') in bars 5-6 and figure (3) in bars 7-8. The lower voice continues with figure (1a') in bars 5-6 and figure (3a) in bars 7-8.
- System 3 (Bars 9-12):** The upper voice continues with figure (3) in bars 9-10 and figure (3') in bars 11-12. The lower voice continues with figure (3a) in bars 9-10 and figure (3a) in bars 11-12.
- System 4 (Bars 13-16):** The upper voice moves into running sixteenth notes in bars 13-16. The lower voice provides accompaniment with figure (4) in bars 13-16.
- System 5 (Bars 17-20):** The upper voice continues with running sixteenth notes in bars 17-18 and figure (y) in bars 19-20. The lower voice continues with figure (4) in bars 17-18 and figure (y) in bars 19-20.

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Exercises

1. For each of the following phrases invent a short tune, a "point of imitation". Write the imitative answer, while the first voice provides a counterpoint. Each example will be between three and eight bars long. Mark your key and time signatures. - (a) *O weep. for the summer is gone.* (b) *Follow that star, that leads you to your heart's desire.* (c) *Jolly shepherds dance and sing.* (d) *Evening falls, day fades away.* (e) *Rejoice. the wondrous day is come.*

2. Write three Minuets: (a) 8 bars in D major, (b) 16 bars, in e minor, (c) 16 bars, in E flat major. First, complete the melody, planning the harmonic structure (especially the cadences) as you go. The piece should follow normal patterns of modulation. Then add a lower part, mostly if not entirely in non-imitative counterpoint. Make it flow.

3. Complete the following inventions, maintaining the imitation or figures.

(a)

The musical notation for exercise 3(a) consists of three systems of staves. The first system has a treble staff with a melody starting on G4, moving up stepwise to D5, and then a series of eighth notes. The bass staff has a counterpoint starting on D3, moving up stepwise to G3, and then a series of eighth notes. The second system continues the melody in the treble staff, ending with a half note D5. The bass staff is empty. The third system continues the melody in the treble staff, ending with a half note D5. The bass staff is empty.

(b)

Exercise (b) is a musical score in G major (one sharp) and 6/8 time. It consists of three systems of staves. The first system has a treble staff with a whole rest followed by a half note G4 and a quarter note A4, and a bass staff with a continuous eighth-note melody. The second system has an empty treble staff and a bass staff with a continuous eighth-note melody. The third system has an empty treble staff and a bass staff with a continuous eighth-note melody, ending with a double bar line.

(c)

Exercise (c) is a musical score in B-flat major (two flats) and 3/4 time. It consists of three systems of staves. The first system has a treble staff with a continuous eighth-note melody and a bass staff with a continuous eighth-note melody. The second system has a treble staff with a continuous eighth-note melody and a bass staff with a continuous eighth-note melody. The third system has a treble staff with a continuous eighth-note melody and a bass staff with a continuous eighth-note melody, ending with a double bar line.

STILL MORE ABOUT STYLE IN FREE COUNTERPOINT

Free counterpoint was given that title to distinguish it from the much more restricted -- and therefore less free- -- style of *Modal* or Renaissance counterpoint (and also from the academic imitation of that style in *Species* counterpoint, sometimes called *Strict Counterpoint*). But the title fits in other ways as well, because unlike most of the material studied in written harmony, free counterpoint is an *instrumental* rather than a *vocal* style. This *frees* it to use leaps, intervals, and figuration which are more natural to orchestral instruments than they are to voices. Although these details of the style originated with instruments, the great composers of the Baroque period (Bach, Handel, Vivaldi and so many others) didn't hesitate to make singers perform them too.

There are several ways in which the student can, *and should*, show this additional freedom. Although nothing in this chapter is really new, the following points may raise concerns for careful students who don't want to be caught taking excessive liberties. This chapter will reassure them about what is acceptable within the style.

Leaps: extent and succession

First of all, it is very important to consider *the medium for which one is writing*. If the medium is a keyboard instrument, and the writing exceeds the reasonable reach of a normal hand, what might otherwise be good counterpoint will be spoiled. For good singers the following, though instrumental in style, is quite possible:

Example 1 *Messiah*: Chorus, *For unto us a child is born*

G.F.Handel



Example 2, which follows, *might* be possible for a solo singer of extraordinary agility. For amateurs or even for most professionals, however, it's simply unsingable. On the other hand, it is quite natural and easy for the violin. Where a medium isn't specified, it is probably best to assume that you are writing either for keyboard or for strings.

Example 2 *Double Concerto in d minor*

J.S.Bach



This example shows that a leap or a series of leaps may sometimes be wider than an octave, but this is unusual. So is the soprano part in Example 3 (a), and the organ pedal (bass) part at 3 (b). In both cases, Bach approaches leaps *from outside their ranges*. Parts like 3 (b), where after a large leap the part continues to move in the same direction, are particularly unusual.

Example 3 (a) *Prelude and Fugue, g minor* J.S.Bach(b) *Prelude and Fugue, G major* J.S.Bach

Usually more than three leaps in the same direction produce bad partwriting, although it is possible when the leaps follow the outline of a chord as at 3 (c).

3. (c) *Prelude and Fugue in C, BWV 545* J.S.Bach

Students preparing for examinations should note several facts about these rare cases, however: first, 3 (b) is an early work by a young Bach who wanted to show off his brilliant technique as a player. He probably would have done this differently later. The other excerpts are from mature works, guided by his enormous skill and experience -- they were not written as a guide for beginners. And finally we repeat: *these procedures are exceptional. Wise examination candidates won't imitate them during examinations!*

On rare occasions Bach uses intervals which are normally forbidden, such as the tritone in Example 4. "Breaking the rules" successfully requires a very secure ear and sense of style, **and is not recommended for examinations!**

Example 4 (a) *"Wedge" Prelude and Fugue in e minor*

J.S.Bach



Bare fifths justified by strong part movement

Some counterpoint texts have discouraged the use of empty fifths and octaves on main beats, and there is no question that they create a rather bare effect. Nevertheless counterpoint is essentially about *melodies*, and strong melodic movement in both parts can sometimes justify open fifths or octaves -- that is, ones which are not filled in with a third or sixth in another voice. In our present two-part texture, there is no other voice! Bach's treatment of these "bare" intervals can be summed up like this:

Octaves on main beats should generally be confined to:
(1) cadences, or (2) the beginnings of new phrases.

Fifths can occur more freely,
if they arise naturally from the movement of the two parts.

But note

Single octaves and fifths on weak beats in fast tempos, or off the beat, are always O.K. unless "exposed"

Consider the following examples, from Bach's first *Invention*. Asterisks mark the bare fifths or octaves.

Example 5 *Invention*, No.1 in C

J.S.Bach

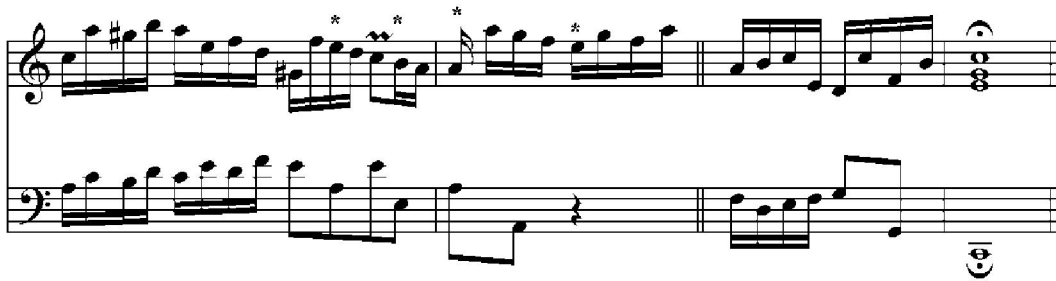
(a) Bars 1-2.

Bars 6-7



(c) Bars 14-15

(d) Final cadence.



Bass patterns in fifths, octaves, and broken chords

Normally, melodies show a balance between disjunct motion (leaps) and conjunct motion (stepwise motion), and this remains just as true for the more wide-ranging instrumental style as it did for vocal melodies. Nevertheless the lower part in two-part writing has two functions. It must take a full part in the imitation and figural development that give the music unity and interest; but it must also function as a good harmonic bass. The need for a strong harmonic bass sometimes produces short periods of broken-chord movement, or movement in fifths and octaves, as at Example 5 (c). This is completely appropriate so long as it isn't the only thing that the bass does. Most of the time in this style, the bass should be part of the web of imitation and rhythmic interplay between the parts, as in all the examples from the C major *Invention* at Example 5 above. The following example shows the extent to which Bach was willing to stretch the "rules" about the treatment of leaps, in his masterful maturity.

Example 6 *Invention*, No. 13 in a minor, bar 13 to 16: _

J.S.Bach



Overlapping phrases

In imitative counterpoint it is normal for the voice parts to overlap at phrase-endings, so that as one voice reaches a cadence, the other carries on the musical flow. Then in turn, when the second voice reaches its phrase-ending, the first one "covers" it and keeps the music going. Naturally this refers to harmonic cadences, as well as other phrase endings. Phrase endings in the upper voice need not -- in fact, should not -- always coincide with them. Notice how cleverly Bach keeps the music moving at these phrase endings:

Example 7 (a) *Invention*. No. 13, bar 2(b) *ibid.*, bars 21-22(b) *continued*(c) *Invention*, No.8, bars 10-13

More about the extension (and elision) of figures

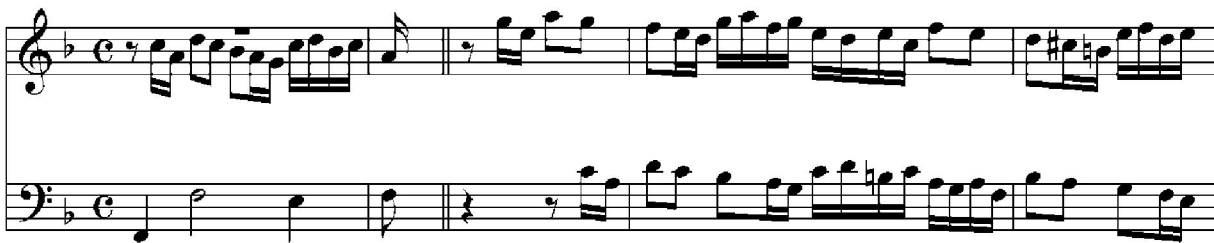
When writing counterpoint based on rhythmic figures, try never to lose sight of *figural development*. This may consist simply of the figure appearing at various pitches, in different parts, while keeping its characteristic rhythm and general shape. But quite often it goes farther, as in Example 8:

Example 8 *Sinfonia*, No.8 in F

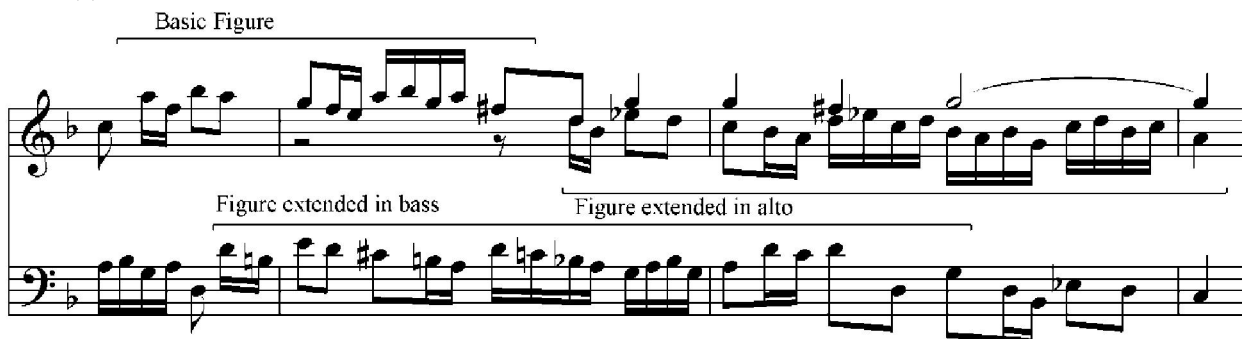
J. S. Bach

(a) Bar 1: the basic figure

(b) The figure extended. bars 7-9



(c) More extensions, bars 9



Figures can also be shortened sometimes by omitting ("eliding") some notes.

Need an ending? Go to the beginning!

Our early studies in form show us that an easy way to make a short piece "hold together", to make it feel as if it is "all one piece" and not just some bits casually joined together, is by *repetition*. Indeed virtually all musical development depends upon the listener's ability to recognize material heard earlier, when it returns in a new context or location.

Two of the forms most students encounter first present the opening, as the basis of their conclusions. In both the ternary or *da capo* form; and in the rounded binary, the conclusion begins with the opening, and often there is no alteration at all. As it began, so it ends. Even when the composer chooses to vary the opening material in some way, its return at the end gives a satisfying feeling of *returning home*. And this has two other virtues: it spares the listener the problem of hearing something new at the end, and trying to make it fit with what s/he has already heard; and it saves the composer the trouble of inventing something new which will work really well.

For real composition, and for examination questions which ask us to complete a given opening, using opening material at the end can be very useful.

Increase in the rate of motion

In pieces more than a few bars in length, we discovered long ago that it's boring to remain constantly in one key. The same problem can arise if the music maintains the same rhythmic pattern for its whole length. Generally, there is some increase in the *rate of motion* as a piece approaches its climax; and then that rate is allowed to settle down as the piece concludes. The *Invention* in F, No.8, provides a simple example of the process:

(a) Opening: eighth and sixteenth notes



(b) Bars 26-29 Rate increases: now all sixteenths



This process is by no means invariable. Bach, and other composers, have written many pieces in which the rate of motion changes very little, and climaxes are produced by melodic shape, imitation, and harmonic structure. However when it seems to happen naturally the increase in the number of rapid notes can be effective and convincing.

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Exercises

1. Complete the following openings as short two-part pieces. Aim for a length of twelve or sixteen bars, and *be sure to plan your harmonic structure and modulations before you begin to write*. Use and develop the rhythmic figures presented in the openings. Ambitious students may want to expand their sixteen-bar pieces into longer ones like the *Bach Inventions*, most of which are about twenty bars long.

(a) For piano



(b) Duet for Oboe and Bassoon



(c) Duet for Viola* and Violin



(d) For Keyboard



(e) For Harpsichord



COUNTERPOINT IN THREE OR MORE PARTS

In many ways it's easier to write three-part counterpoint than to write in two parts. Harmony which can only be implied in two parts becomes reasonably complete in three. More imitations are available; forms of imitation which would produce bad six-four chords if used in the lower voice in two parts will be perfectly acceptable between the upper two voices out of three. The opportunity to vary the texture with two-part sections makes for a more interesting structure. It's no wonder that in the Baroque period three-part textures were much more common than two-part ones.

Typically, Baroque composers wrote what are called Trio Sonatas. These may follow the four-movement structure of the Concerto Grosso (Slow, Fast, Slow, Fast), or they may consist of several movements in dance forms, like a suite. In the first case they are known as *Sonata da chiesa*, Church Sonata. The suite-like form is called *sonata da camera*, chamber sonata. Johann Sebastian Bach and a few of his students wrote trio sonatas for the organ: one voice-part for the right hand, on one keyboard, another for the left hand on another keyboard, and a third for the feet on the pedal keyboard. In the same way, Bach's *Sinfonias* are three-part pieces for two hands playing one keyboard. The standard trio sonata instrumentation actually calls for *four* players: two treble instruments (often violins), a bass instrument (usually a cello or bassoon), and a *continuo* instrument which fills in the harmony from a figured bass. The continuo is usually a harpsichord or organ, but the same role can be played by a lute, or even a guitar. However the student shouldn't rely upon the continuo to fill in the harmony; it is usually omitted from examination questions, and in any case the harmony should be complete in the string parts.

Triads, Seventh Chords, and Doubling

Obviously the free development of contrapuntal parts is unlikely to produce a continuous series of complete three-note triads. As in all harmonic styles, the fifths of both triads and seventh chords may be omitted. Doubled major thirds are more common in contrapuntal styles than in block harmony; if a doubled third is the result of good part movement, it is acceptable.

Seventh chords could only be suggested in two-part writing, although occasionally parts moving through the notes of the chord can spell out a seventh chord unmistakably. In three parts seventh chords must still omit one note, and preferably this is the fifth. However other voicings will work, too; with the root omitted the chord becomes identical to the triad a third higher, but it may be treated as an incomplete seventh chord if that fits the context. The third may be omitted in the middle of a passage, but it is needed at cadences (particularly the third of V^7 , the leading note). With the seventh omitted, of course, the chord ceases to *be* a seventh chord!

Spacing between parts

As with doublings, so with the separation between parts: everything depends upon the part writing. For keyboard music like Bach's *Sinfonias*, where one hand must play more than one part simultaneously, the reach of a normal hand on the keyboard imposes practical limits. However where a part can be passed from one hand to the other, or when writing for the organ where the player's feet can provide the bass, even keyboard music can allow wider spacings. Whatever happens must clearly follow the natural movement of the parts.

When writing for instrumental ensembles, the natural movement of the counterpoint can be given an even freer

rein. In the following example from a trio sonata by Corelli, the spacing between the two violins follows normal rules throughout the first eight bars. In bar nine, however, the second violin (crossing above the first), is separated from the first by a minor tenth. This kind of separation, and the crossing of the upper parts in bars 2, 3, 7, and 9, are perfectly justified when strong part writing supports them. So, while examination candidates shouldn't go looking for chances to cross the parts:

Upper parts may cross freely so long as they don't create awkward major- or minor-second clashes which don't resolve.

Most spacing between parts should follow normal roles, that is, not more than an octave between upper voices. But *where the part writing requires it*, in order to maintain strong rhythmic shape of imitative writing, larger intervals are allowed.

Example 1. *Sonata da chiesa*, Op. 3, NO.7

Allegro

Arcangelo Corelli

The musical score is presented in three systems, each with three staves (Violin I, Violin II, and Bass). The key signature is one sharp (F#) and the time signature is 3/4. The tempo marking is *Allegro*. The measures are numbered 1 through 13. The first system contains measures 1-5, the second system contains measures 6-10, and the third system contains measures 11-13. The score illustrates the spacing rules between parts, specifically focusing on the crossing of the two violin parts in measure 9.

Our next example, the opening of a Bach *Sinfonia* or three-part Invention, shows how the ranges must be restricted to make three-part counterpoint playable by two hands on a keyboard. Note particularly how the middle voice must cross from right hand to left and back (bars 2, 9, 11, 12). The bass part lies quite high for much of the excerpt, but this appears to be the sonority Bach preferred for this piece. In those sections the right hand generally takes both upper voices, and the left could have been an octave lower if he had preferred it that way.

Example 2. *Sinfonia*. No. 11 in g minor *Andante con moto* J.S.Bach

The musical score for Example 2, J.S. Bach's *Sinfonia* No. 11 in g minor, is presented in 3/8 time. It consists of 13 measures. The right hand (treble clef) and left hand (bass clef) are shown. The middle voice crosses between hands in measures 2, 9, 11, and 12. The bass part is notably high in the register.

Styles in Three-Part Counterpoint

The simplest form of three-part counterpoint would be in what Renaissance musicians called "the familiar style", with all voice parts moving simultaneously in the same rhythm. Although the music was conceived as a combination of individual melodies interacting contrapuntally, the result looks like a series of block chords.

But even when the parts move in different, complementary rhythms, three-part counterpoint can be quite simple. Consider Example 3, the introduction of a *Voluntary* by John Stanley. The excerpt has neither a figure being developed, nor imitation between the voice parts. Nevertheless the parts maintain enough independence to keep our interest through this short introduction, and the suspensions in bars 4 and 7 provide some harmonic colour on main beats. Incidentally, notice the difference in the effect of the ties into bars 4 and 7, which are dissonant suspensions, and those into bars 3 and 5, which begin with cadential six-fours. The suspensions provide rhythmic intensification on beat one, but the six-fours, being less dissonant, are rhythmically neutral.

Example 3: *Voluntary II*. Op. 5, *Adagio* John Stanley

The musical score for Example 3, John Stanley's *Voluntary II*, Op. 5, *Adagio*, is presented in 3/4 time. It consists of 7 measures. The right hand (treble clef) and left hand (bass clef) are shown. The music features suspensions in bars 4 and 7, and cadential six-fours in bars 3 and 5.

Like Example 3, Example 4 begins with a very simple texture. Indeed, with the soprano and alto voices moving together in sixths, the first four bars are not really *in* three independent parts. At bar 5, however, the texture changes to independent part movement, with imitation, but the imitative writing does not include the lowest voice.

Example 4. *Trio*. No. 11

Johann Andreas Sorge

Examples 3 and 4 are both from keyboard pieces. The Stanley (Example 3) is for harpsichord, or for organ without a pedal keyboard. The Sorge (Example 4) assumes that the lowest voice will be played independently by the organ's pedals. In both examples the contrapuntal texture is very simple. However the next example, like the Bach *Sinfonia* (Example 2), shows that keyboard trios can be in highly developed imitative counterpoint.

Example 5. *Trio Sonata*, No. 5, BWV 529 (Third movement)

J.S. Bach

Like the *Sinfonias*, Bach's six *Trio Sonatas* for organ are wonderful examples of how a master teacher can write technical studies for instrumentalists, which are also highly interesting and expressive music. Any of the eighteen separate movements would repay detailed study by contrapuntists, but space here limits us to just a few comments. In Example 5, for instance, note the figure stated in the upper voice in bars 1 and 2, which appears as a delayed imitative entry in the middle voice (bars 5 and 6). The pedal (lowest) part begins the same figure in bars 7 and 8. This entry is slightly altered, tying the half note to an eighth and two sixteenths instead of four sixteenths.

In the meantime the pedal suspension from bar 2 is repeated a fourth lower (that is, in the dominant key) in bar 6. Similarly the suspension from bar 3 is repeated in the middle voice in bar 7, echoed in bar 9, and repeated again in bar 11. The upper voice has a shortened version of the opening figure in bars 10 and 11. After this excerpt the piece continues to be tightly constructed, using these opening materials.

The exercises which follow are in three categories: three-part examples with one complete part given, three-part openings which should be continued in the same style, and four-part questions. Most of them are from eighteenth-century sources.

Questions of style which were considered in Chapters 6 and 7 should be foremost in the planning of these short pieces. With the stylistic organization of figures and imitations, it continues to be necessary to plan clear-cut, logical harmonic progressions; though the student should always be ready to modify planning, if an opportunity for more interesting writing appears as s/he works. Since these pieces will require experiments and trials as they are worked out, the student is authorized to photocopy them.

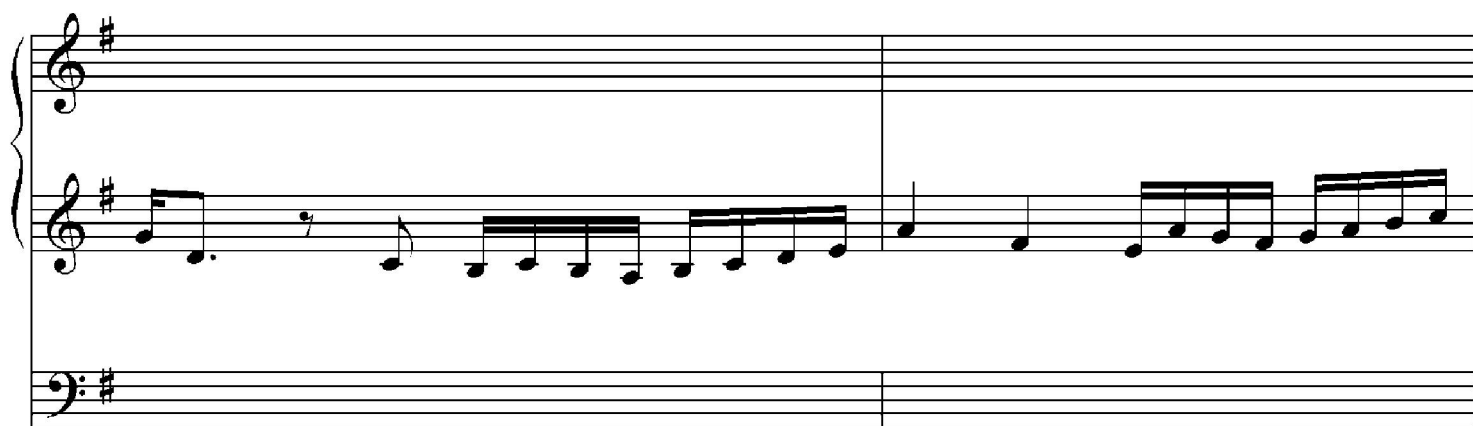
Exercises

1. Complete the following contrapuntal outlines.

Johann Ludwig Krebs

(a)

The exercise is a three-part contrapuntal outline in G major, 3/4 time. The first system shows the beginning of the piece, with the upper voice (treble clef) having a whole rest in bar 1 and a half note G in bar 2, followed by a half note A in bar 3. The middle voice (treble clef) has a whole rest in bar 1, a half note G in bar 2, and a half note A in bar 3. The lower voice (bass clef) has a half note G in bar 1, a half note A in bar 2, and a half note B in bar 3. The second system shows the continuation of the piece, with the upper voice having a whole rest in bar 4 and a half note G in bar 5, followed by a half note A in bar 6. The middle voice has a whole rest in bar 4, a half note G in bar 5, and a half note A in bar 6. The lower voice has a half note G in bar 4, a half note A in bar 5, and a half note B in bar 6.



(b)

The first system of musical notation consists of three staves. The top staff is in treble clef, the middle in treble clef, and the bottom in bass clef. The time signature is 4/4. The music begins with a half rest in the top staff, followed by a series of eighth and sixteenth notes. The middle staff has a half rest followed by a series of eighth and sixteenth notes. The bottom staff has a half rest followed by a series of eighth and sixteenth notes.

The second system of musical notation consists of three staves. The top staff is in treble clef, the middle in treble clef, and the bottom in bass clef. The music continues from the first system. The top staff features a series of eighth and sixteenth notes. The middle staff has a half rest followed by a series of eighth and sixteenth notes. The bottom staff has a half rest followed by a series of eighth and sixteenth notes.

The third system of musical notation consists of three staves. The top staff is in treble clef, the middle in treble clef, and the bottom in bass clef. The music continues from the second system. The top staff features a series of eighth and sixteenth notes, ending with a trill marked 'tr'. The middle and bottom staves have half rests.

(b), Part Two

The first system of the musical score consists of three measures. The treble clef staff contains a series of eighth-note runs in the first measure, followed by a half-note chord in the second measure, and a half-note chord in the third measure. The bass clef staff contains a whole rest in each of the three measures.

The second system of the musical score consists of three measures. The treble clef staff contains a series of eighth-note runs in the first measure, followed by a half-note chord in the second measure, and a half-note chord in the third measure. The bass clef staff contains a whole rest in each of the three measures.

The third system of the musical score consists of three measures. The treble clef staff contains a series of eighth-note runs in the first measure, followed by a half-note chord in the second measure, and a half-note chord in the third measure. The bass clef staff contains a whole rest in each of the three measures.

(c)

First system of musical notation, measures 78-81. The system consists of three staves: a grand staff (treble and bass clefs) and a single bass staff. The time signature is 6/8. The first staff has a treble clef and a key signature of one sharp (F#). The second staff has a bass clef. The third staff has a bass clef. The music is in common time (C). The first staff contains a melody with eighth and sixteenth notes, including a sharp sign. The second staff is empty. The third staff contains a bass line with eighth and sixteenth notes, including a sharp sign.

Second system of musical notation, measures 82-85. The system consists of three staves: a grand staff (treble and bass clefs) and a single bass staff. The time signature is 6/8. The first staff has a treble clef and a key signature of one sharp (F#). The second staff has a bass clef. The third staff has a bass clef. The music is in common time (C). The first staff is empty. The second staff is empty. The third staff contains a bass line with eighth and sixteenth notes, including a sharp sign.

Third system of musical notation, measures 86-89. The system consists of three staves: a grand staff (treble and bass clefs) and a single bass staff. The time signature is 6/8. The first staff has a treble clef and a key signature of one sharp (F#). The second staff has a bass clef. The third staff has a bass clef. The music is in common time (C). The first staff is empty. The second staff is empty. The third staff contains a bass line with eighth and sixteenth notes, including a sharp sign.

(d)

System (d) consists of two staves. The upper staff is in treble clef with a key signature of two flats and a common time signature. It begins with a whole note chord, followed by a half note chord, and then a series of half notes. The lower staff is in bass clef and contains a continuous eighth-note accompaniment pattern throughout the system.

(Middle voice continues)

System 2 consists of two staves. The upper staff continues the melody from the previous system, featuring half notes and quarter notes. The lower staff is empty, indicating that the middle voice continues in a separate part.

(Middle voice continues)

System 3 consists of two staves. The upper staff continues the melody with half notes and quarter notes. The lower staff is empty, with the text "(Middle voice continues)" written in the right margin, indicating that the middle voice continues in a separate part.

System 4 consists of two staves. The upper staff continues the melody with half notes and quarter notes. The lower staff contains a continuous eighth-note accompaniment pattern throughout the system.

System 5 consists of two staves. The upper staff continues the melody with half notes and quarter notes. The lower staff contains a continuous eighth-note accompaniment pattern throughout the system.

(e) *Violin I*

Violin II

Continuo

This system contains the first three measures of a musical passage. The Violin I part begins with a half note G4, followed by eighth-note runs in measures 81 and 82. The Violin II part is mostly silent, with a half note G4 in measure 82. The Continuo part provides a harmonic foundation with a half note G3 in measure 80, a half note A3 in measure 81, and a descending eighth-note line in measure 82.

This system contains measures 83, 84, and 85. The Violin I part has a half note G4 in measure 83, followed by eighth-note runs in measures 84 and 85. The Violin II and Continuo parts are silent throughout this system.

This system contains measures 86, 87, and 88. The Violin I part has a half note G4 in measure 86, followed by eighth-note runs in measures 87 and 88. The Violin II and Continuo parts are silent throughout this system.



(e) continued

Musical score for section (e) continued. The score is written for a grand staff (treble and bass clefs) with a key signature of one sharp (F#) and a common time signature. The treble staff contains a melodic line with eighth and sixteenth notes, while the bass staff is empty. The section ends with a double bar line and a repeat sign.

* This excerpt ends with a cadence in C;
the same Legrenzi piece is continued at (f)

(f)

Musical score for section (f). The score is written for a grand staff (treble and bass clefs) with a key signature of one sharp (F#) and a 3/4 time signature. The treble staff contains a melodic line with eighth and sixteenth notes, while the bass staff is empty. The section ends with a double bar line and a repeat sign.

Musical score for section (f) continued. The score is written for a grand staff (treble and bass clefs) with a key signature of one sharp (F#) and a 3/4 time signature. The treble staff contains a melodic line with eighth and sixteenth notes, while the bass staff is empty. The section ends with a double bar line and a repeat sign.

(f) continued

The first system of musical notation consists of three staves. The top staff is a grand staff with a treble clef and a key signature of one sharp (F#). The middle staff is a single treble staff with a key signature of one sharp (F#). The bottom staff is a single bass staff with a key signature of one sharp (F#). The music is written in 4/4 time. The first staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures. The second staff contains a series of eighth and sixteenth notes in the first, second, and third measures, followed by a half rest in the fourth measure, and then a series of eighth and sixteenth notes in the fifth measure. The third staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures.

The second system of musical notation consists of three staves. The top staff is a grand staff with a treble clef and a key signature of one sharp (F#). The middle staff is a single treble staff with a key signature of one sharp (F#). The bottom staff is a single bass staff with a key signature of one sharp (F#). The music is written in 4/4 time. The first staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures. The second staff contains a series of eighth and sixteenth notes in the first, second, and third measures, followed by a half rest in the fourth measure, and then a series of eighth and sixteenth notes in the fifth measure. The third staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures.

The third system of musical notation consists of three staves. The top staff is a grand staff with a treble clef and a key signature of one sharp (F#). The middle staff is a single treble staff with a key signature of one sharp (F#). The bottom staff is a single bass staff with a key signature of one sharp (F#). The music is written in 4/4 time. The first staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures. The second staff contains a series of eighth and sixteenth notes in the first, second, and third measures, followed by a half rest in the fourth measure, and then a series of eighth and sixteenth notes in the fifth measure. The third staff contains a whole rest in the first measure, followed by a half rest in the second measure, and then a series of eighth and sixteenth notes in the third, fourth, and fifth measures.

(g)

Violin I

Arcangelo Corelli

*Violin II**Continuo*

Violin I: Treble clef, key of D major (two sharps), common time. Measures 1-5: D4 (half), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Violin II: Treble clef, key of D major (two sharps), common time. Measures 1-5: D4 (half), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Continuo: Bass clef, key of D major (two sharps), common time. Measures 1-5: D3 (half), E3 (quarter), F#3 (quarter), G3 (quarter), A3 (quarter), B3 (quarter), C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (quarter), D3 (half).

Violin I: Treble clef, key of D major (two sharps), common time. Measures 6-10: E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Violin II: Treble clef, key of D major (two sharps), common time. Measures 6-10: D4 (half), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Continuo: Bass clef, key of D major (two sharps), common time. Measures 6-10: D3 (half), E3 (quarter), F#3 (quarter), G3 (quarter), A3 (quarter), B3 (quarter), C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (quarter), D3 (half).

Violin I: Treble clef, key of D major (two sharps), common time. Measures 11-15: E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Violin II: Treble clef, key of D major (two sharps), common time. Measures 11-15: D4 (half), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter), D4 (half).

Continuo: Bass clef, key of D major (two sharps), common time. Measures 11-15: D3 (half), E3 (quarter), F#3 (quarter), G3 (quarter), A3 (quarter), B3 (quarter), C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (quarter), D3 (half).

(g) continued

The first system of musical notation consists of three staves. The top staff is in treble clef with a key signature of two sharps (F# and C#). It contains five measures of music: the first measure has a quarter note F#4, a quarter note G4, and a quarter note A4; the second measure has an eighth rest, followed by eighth notes B4, C5, D5, E5, and F#5; the third measure has a half note G5; the fourth measure has a half note F#5; and the fifth measure has a half note E5. The middle and bottom staves are empty.

The second system of musical notation consists of three staves. The top staff continues the melody from the first system. It contains five measures: the first measure has eighth notes F#4, G4, A4, and B4; the second measure has eighth notes C5, D5, E5, and F#5; the third measure has a half note G5; the fourth measure has a half note F#5; and the fifth measure has a half note E5. The middle and bottom staves are empty.

The third system of musical notation consists of three staves. The top staff continues the melody from the second system. It contains five measures: the first measure has eighth notes F#4, G4, A4, and B4; the second measure has eighth notes C5, D5, E5, and F#5; the third measure has a half note G5; the fourth measure has a half note F#5; and the fifth measure has a half note E5. The middle and bottom staves are empty.

2. Copy and complete these openings, maintaining the given style for 12 to 16 measures.

(a)

Exercise (a) is a short musical piece in G major (one sharp) and common time (C). It consists of four measures. The melody in the treble clef begins with a quarter rest, followed by a quarter note G, a quarter note A, and a quarter note B. The bass line starts with a half note G, followed by a half note A, and then a half note B. The piece ends with a final cadence in the fourth measure.

(b)

Exercise (b) is a short musical piece in G major (one sharp) and 6/8 time. It consists of four measures. The melody in the treble clef begins with a quarter rest, followed by a quarter note G, a quarter note A, and a quarter note B. The bass line starts with a half note G, followed by a half note A, and then a half note B. The piece ends with a final cadence in the fourth measure.

(c)

Exercise (c) is a short musical piece in G major (one sharp) and 2/4 time. It consists of five measures. The melody in the treble clef begins with a quarter rest, followed by a quarter note G, a quarter note A, and a quarter note B. The bass line starts with a half note G, followed by a half note A, and then a half note B. The piece ends with a final cadence in the fifth measure.

(d)

Trio Sonata, Op. 3, No. 2

Arcangelo Corelli

Exercise (d) is a short musical piece in G major (one sharp) and 3/4 time, based on the opening of Arcangelo Corelli's Trio Sonata, Op. 3, No. 2. It consists of five measures. The melody in the treble clef begins with a quarter rest, followed by a quarter note G, a quarter note A, and a quarter note B. The bass line starts with a half note G, followed by a half note A, and then a half note B. The piece ends with a final cadence in the fifth measure.

3. Complete the following four-voice contrapuntal textures. Maintain the style.

J. S. Bach

(a)

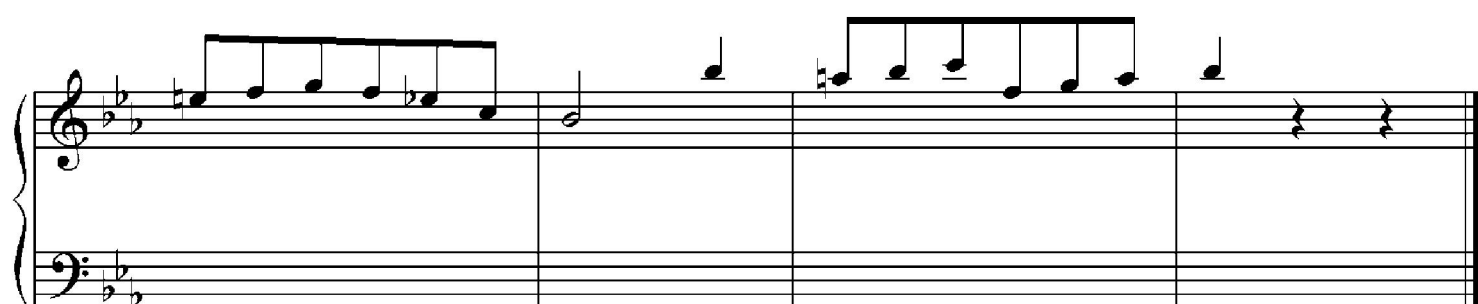
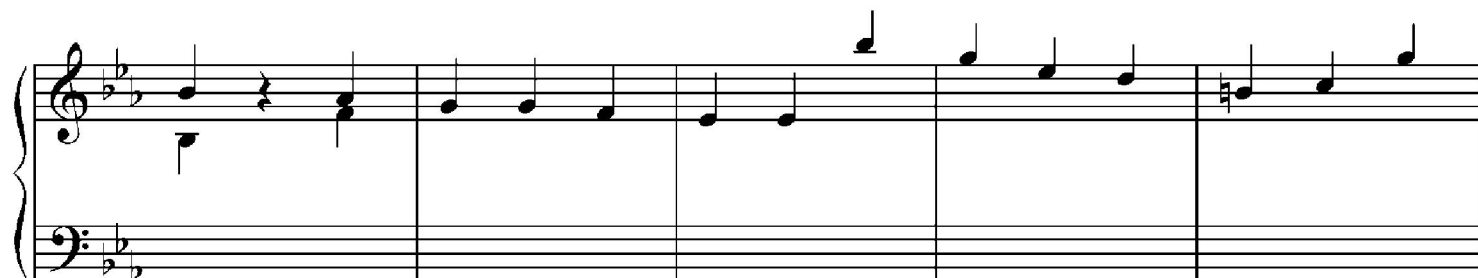
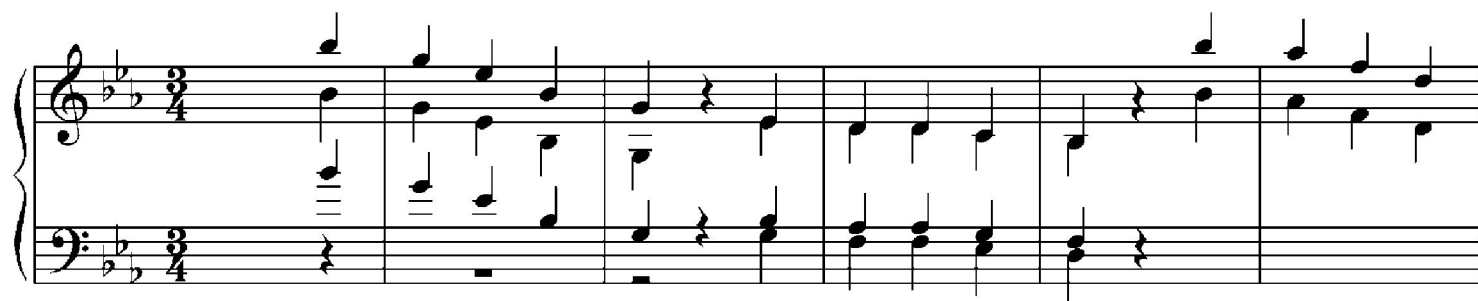
Exercise (a) is a four-voice contrapuntal texture in G major (one sharp) and common time. The first measure shows a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then a descending eighth-note scale. The bass staff has a simple harmonic accompaniment of quarter notes: G3, B2, D3, and G2. The second measure continues the treble line with a half note B4 and a quarter note A4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: B2, D3, F#3, and G2. The third measure shows the treble staff with a half note G4 and a quarter note F#4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: D3, F#3, A3, and G2.

Exercise 1 is a four-voice contrapuntal texture in G major. The first measure shows a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then a descending eighth-note scale. The bass staff has a simple harmonic accompaniment of quarter notes: G3, B2, D3, and G2. The second measure continues the treble line with a half note B4 and a quarter note A4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: B2, D3, F#3, and G2. The third measure shows the treble staff with a half note G4 and a quarter note F#4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: D3, F#3, A3, and G2.

Exercise 2 is a four-voice contrapuntal texture in G major. The first measure shows a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then a descending eighth-note scale. The bass staff has a simple harmonic accompaniment of quarter notes: G3, B2, D3, and G2. The second measure continues the treble line with a half note B4 and a quarter note A4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: B2, D3, F#3, and G2. The third measure shows the treble staff with a half note G4 and a quarter note F#4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: D3, F#3, A3, and G2.

Exercise 3 is a four-voice contrapuntal texture in G major. The first measure shows a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then a descending eighth-note scale. The bass staff has a simple harmonic accompaniment of quarter notes: G3, B2, D3, and G2. The second measure continues the treble line with a half note B4 and a quarter note A4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: B2, D3, F#3, and G2. The third measure shows the treble staff with a half note G4 and a quarter note F#4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: D3, F#3, A3, and G2.

Exercise 4 is a four-voice contrapuntal texture in G major. The first measure shows a treble staff with a melodic line starting on G4, moving up stepwise to B4, and then a descending eighth-note scale. The bass staff has a simple harmonic accompaniment of quarter notes: G3, B2, D3, and G2. The second measure continues the treble line with a half note B4 and a quarter note A4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: B2, D3, F#3, and G2. The third measure shows the treble staff with a half note G4 and a quarter note F#4, followed by a descending eighth-note scale. The bass staff continues with quarter notes: D3, F#3, A3, and G2.



(c)

System (c) consists of two staves. The upper staff is in treble clef with a key signature of two flats and a 6/8 time signature. It contains five measures of music: the first four measures feature eighth-note patterns, and the fifth measure contains two dotted half notes. The lower staff is in bass clef and contains five measures of whole rests.

(continue soprano voice)

This system continues the soprano voice line from the previous system. It consists of two staves. The upper staff contains four measures of eighth-note patterns. The lower staff contains four measures of whole rests.

(continue upper voices)

This system continues the upper voices. It consists of two staves. The upper staff contains five measures of eighth-note patterns. The lower staff contains five measures of music: the first two measures are whole rests, and the last three measures contain eighth-note patterns.

(continue soprano, alto, and tenor voices)

This system continues the soprano, alto, and tenor voices. It consists of two staves. The upper staff is empty for all five measures. The lower staff contains five measures of music: the first three measures are whole rests, and the last two measures contain eighth-note patterns.

The final system consists of two staves. The upper staff is empty for all five measures. The lower staff contains five measures of music: the first measure has an eighth-note pattern, the second and third measures have quarter notes, and the fourth and fifth measures have whole rests.

(d)

(continue tenor voice)

(continue alto and tenor voices)

(continue alto, tenor, and bass)

(Alto given: continue soprano and tenor. Have some bass rests as you approach the next entry, in the final system)

(Bass entry. Continue soprano, alto, and tenor voices to end)

Praeludium (for organ)

91

F. X. Brixi

(e)

The first system of musical notation consists of two staves. The upper staff is in treble clef with a key signature of one flat (B-flat) and a 4/4 time signature. It contains a melodic line with eighth and sixteenth notes. The lower staff is in bass clef with the same key signature and time signature, providing a harmonic accompaniment with quarter and eighth notes.

The second system of musical notation consists of two staves. The upper staff is empty. The lower staff continues the melodic line from the first system, featuring a sequence of eighth and sixteenth notes.

The third system of musical notation consists of two staves. The upper staff is empty. The lower staff continues the melodic line, showing a variety of rhythmic patterns including eighth and sixteenth notes.

First system of a musical score. The piano part (top) consists of two staves (treble and bass clef) with a key signature of one flat (B-flat). The bass part (bottom) is a single staff in bass clef with a key signature of one flat. The piano part is empty. The bass part contains a melodic line: a half note B-flat, a dotted quarter note A, an eighth note G, a half note F, a dotted quarter note E, an eighth note D, a half note C, a dotted quarter note B-flat, an eighth note A, a half note G, a dotted quarter note F, and an eighth note E.

Second system of a musical score. The piano part (top) consists of two staves (treble and bass clef) with a key signature of one flat (B-flat). The bass part (bottom) is a single staff in bass clef with a key signature of one flat. The piano part is empty. The bass part contains a melodic line: a half note B-flat, a dotted quarter note A, an eighth note G, a half note F, a dotted quarter note E, an eighth note D, a half note C, a dotted quarter note B-flat, an eighth note A, a half note G, a dotted quarter note F, and an eighth note E.

DOUBLE COUNTERPOINT AND FUGAL EXPOSITIONS

The Invertibility of Triads

As students of harmony, one of the first things we learned about was the inversion of triads. In our common modern understanding, the notes C, E and G always form a major triad, and the chord retains this identity no matter which of those three notes is in the bass. Of course we learn very early that the inverted forms are not as stable as the root position; and in particular, we learn that second-inversion triads require special treatment.

Then in due time we learned that seventh chords, which have three inversions, are more or less equally stable in any of their four positions. The limitation in their case is that sevenths require resolution, but this applies to the seventh no matter in which voice it appears. In our studies of counterpoint so far, it has remained true that second-inversion triads, or six-fours, require special handling if they are used at all. First-inversion triads, and all inversions of seventh chords, can be used as freely in two- or three-part writing as they can in four parts.

The Inversion of Contrapuntal Passages

Like single chords, contrapuntal passages can be *inverted* by moving the upper voice-part so that it lies below what has been the lower one. In this position the former upper part becomes the bass. This procedure shouldn't be confused with *melodic inversion*, which occurs when the intervals of a tune are reversed in direction, as in Example 1:

Example 1: Melodic inversion

Original forms of melodies

Inverted forms of melodies

This kind of melodic inversion, however, has nothing to do with invertible counterpoint.

Invertible Counterpoint

Invertible counterpoint (also sometimes called *double counterpoint*) arises in cases like those in Example 2, where the original upper part is moved *below the part that was formerly the bass* (alternatively, the same result can be produced by moving the bass up, above the original upper part). The *inversion* in the phrase "invertible counterpoint", then, is this: what was an upper part becomes the bass, and what was the bass becomes an upper part. For the time being we will examine invertible counterpoint in two parts only, so the two parts will simply trade places when they are inverted.

The process is demonstrated in the following examples. Example 2 (a) is the opening of Bach's *Invention No. 6*, and the inverted form (shown on the lower staff) occurs in bars 5 to 8. Example 2 (b) is from the concluding fugue of the Cantata *Domine, ad adjuvandum me festina* by the Italian composer Giovanni Battista ("Il Padre") Martini. In both cases the inversion involves shifting the upper part down an octave, and the lower one up an octave, so that they simply change places.

Original forms

(a) (b)

Inverted forms

(a) (b)

A little experimentation will show that not every contrapuntal passage can be inverted. Consider this example from the Gavotte, in Handel's keyboard suite in G major:

Example 3: Uninvertible counterpoint

George Frideric Handel

Original form

1 2 3 4 5 6 7 8

Attempted inversion

1 2 3 4 5 6 7 8

The places marked in the attempted inversion deserve examination. The basic rule about invertible counterpoint is that we must *avoid bad six-four chords in the inversion*. Sometimes inversions produce other kinds of harmonic nonsense, and these also should be avoided. Of the three marked chords, that marked with an X shows a clear example of a bad six-four: V_4^6 on the first beat of bar 4. It comes on a strong beat; a good cadential six four is approached this way, but it must change into a dominant chord by moving to the root position triad *with the same bass note*. This doesn't happen, with apparently another position of V^7 following it; but the harm is already done. If not "incorrect", Bar 7 is certainly awkward. There an apparent V_4^6 on beat 3 is followed by root-position V on beat 4, as the upper voice drops an octave; but the parts are no longer inverted, so this isn't invertible counterpoint. Then on the half-beat before the bar line, the bass seems to move to the tonic chord in its second inversion. Presumably that eighth-note G can be explained as an anticipation, but the effect is very clumsy.

The chords marked with asterisks demonstrate that the fifth of a triad in the upper voice won't necessarily produce a

bad six-four when inverted. In the first complete bar, at beat 3, the original chord is certainly I^6_4 ; but it doesn't contain a G, and when the inversion appears, while it could be I^6_4 , it might just as well be iii^6 . In this case, the two parts moving in sixths are quite acceptable. This happens again at the other asterisk, four bars before the end.

Writing Invertible Counterpoint

Traditionally double counterpoint has been presented with tables of inversions, with the aim that the student should be able to write one part above or below the given part, calculating in advance that the inversion will produce an acceptable combination. In many textbooks this is made more forbidding by presenting double counterpoint not only "at the octave", (and "at the fifteenth", or two octaves) but also in its other most likely forms: double counterpoint at the tenth, and at the twelfth. In transposing a part one octave, or two octaves, note names remain unchanged, and in most cases so do chords. Most frequently all that changes in the harmony is the inversion of the chord.

Transposition of one part by a tenth (a third plus an octave), or by a twelfth (a fifth plus an octave) not only changes the location of the part being transposed; it also changes the note names, and therefore the chords. This is not to say that such transpositions can be ignored; on the contrary, they are important tools for the contrapuntist. But in the author's opinion, it is desirable first to become fluent in writing invertible counterpoint at the octave or fifteenth.

For this purpose it is recommended that the student work directly on both forms of the added part at once, relying not upon tables of transpositions (in any case most of us already know that the inversion of any interval can be found by subtracting its number from nine), but rather upon direct observation of the effect of the inversion. Clear labelling of all chords and unessential notes is very important here, because awkward combinations will unquestionably creep in unless every chord is carefully identified. Begin with the given part (the *cantus firmus*, C.F. for short) copied onto the middle staff of a three-stave system:

Example 4 The Layout for writing an invertible counterpoint

The musical notation shows a three-staff system in G major (one sharp) and 8/8 time. The middle staff contains a cantus firmus (C.F.) with the following notes: G4 (half), A4 (quarter), B4 (quarter), C5 (quarter), D5 (quarter), E5 (quarter), F#5 (quarter), G5 (half). Below the staff, the chords are labeled: b: i V₅ i VI⁶ III i D: ii⁶ IV V I⁶ vi⁶. The top and bottom staves are empty, intended for writing counterpoint.

Now write a counterpoint above this part, choosing probable chords in advance in the normal way, as is shown above. As you write, however, copy each bar of your added part onto the bottom stave, and name the chords produced by it with the given part above it. Don't attempt to name chords for all three staves at once; for now you are concerned only with two pairs of parts- the C.F. with a new part written *above* it, and the C.F. with the same new part written *below* it. Each of these pairs must make effective harmony; or putting it another way, either part (the C.F. or the new one) must make an effective bass to the other. Our first pair of parts might begin this way:

Example 5 shows a complete upper voice added to the c.f. In real work, it would be better to copy each note of the added part in the lower octave, on the bottom stave, as you write. That way bad inversions can be discovered immediately, and corrected as you develop the upper part, *and name the resulting chords*; that is, the two-note chords produced by the new notes on the lowest stave, with the middle one (the C.F.). For clarity here, we have completed this upper voice in one example. Now consider the implications of transposing it down an octave to invert the counterpoint. The last bar shows that our first attempt *doesn't invert* at the octave; the parts cross.

Example 5: Upper voice added (problem with lower voice cued in last bar)



Example 6, below, has an altered upper voice, which avoids the parts crossing in the inversion. The harmony it implies is shown below the bottom staff.

Example 6: Upper voice copied at the octave below, below c.f.

b: i^6 V^4_2 i^6 VI iii^6 v iv i^6 VII⁶ V⁶ vii i iv^6 iv iv^6

This is an example of double counterpoint *at the octave*. **In most cases it is preferable to write *at the fifteenth***, that is with a two-octave transposition. This leaves much more room to develop a good part which interacts well with the C.F., and avoids difficulties like those in the last bar of Example 5.

The following example shows again how double counterpoint at the octave limits the writer's freedom. The upper voice and the C.F. together produce acceptable harmony, but when the upper voice is transposed down an octave to become a bass, it crosses above the C.F. at two points. This is unacceptable.

Example 7: Octave transposition of an added part which fails to invert.

Chord symbols for Example 7:

Staff 2 (Treble): d: i⁶ VII⁶ VI⁶ iv vii⁰⁷ V⁶₅ i VI⁶ V⁶₅

Staff 3 (Bass): d: i ii⁶ VII VI viio⁷ V V⁴₂ * *

At the points in the box, marked with asterisks, there is no inversion. The c.f. is still sounding as the bass (F and E are both above the c.f.'s D and C#). In addition, the motion of the eighth-notes C and D, between the high notes in the box, creates a bad case of "walking into a unison", with an unresolved major second between C and the c.f.'s D (bar 4, beat 4).

The problem can be solved very simply by transposing the upper voice down *two octaves* (a fifteenth). In this version, at Example 8, nothing crosses; the added part becomes a real bass, and the eighth note C in bar 4 is a good appoggiatura.

Example 8: Upper voice copied at the fifteenth below

Chord symbols for Example 8:

Staff 2 (Treble): d: i⁶ V⁶ i vi⁶ iv vii⁰⁷ V⁶₅ i vi⁶ V⁶₅ I

Staff 3 (Bass): d: i ii⁶ VII VI vii⁰⁷ V V⁴₂ i⁶ VI vi⁶ vii⁰⁷ ----- I⁶

Although double counterpoint at the fifteenth is easier to write, and usually more effective than that at the octave, we don't always have the option of using it. Sometimes examination questions specify "double counterpoint at the octave"; in other cases (some fugal expositions, for example) it is unworkable without creating bad spacing between adjacent parts. In these cases we must just do the best we can.

Correcting uncomfortable fourths

On the whole, fifths between harmony notes in the two upper voices are to be avoided, because inverted they become fourths, suggesting 6-4 chords. However not all fourths are bad. Some, obviously, are harmonically unessential: passing notes, auxiliaries, and so on. Some can be accepted as good 6-4 chords: passing, arpeggio, auxiliary, and appoggiatura (cadential) six-four's. In these cases, in two-part writing, the passing and auxiliary six-four's will be identical to simple passing and auxiliary notes. Augmented fourths suggest dominant seventh chords, in their third (4-2) inversions, or the diminished seventh. If they can resolve outward by step, all is well. The same notes, enharmonically altered into a diminished fifth, can also resolve inward by step, as V^6_5 in another key. But each occurrence of a harmonic fourth must be checked carefully; what would be bad 6-4's in four parts can become real nonsense in two.

Example 9

Double counterpoint with fourths in the lower transposition

Chord symbols for the top staff: $d: i^6$, V^6 , i , vi^6 , iv , vii^{o7} , V^6_5 , i , V^6 , I

Chord symbols for the bottom staff: $d;$, i , V^6 , i , i^6_4 , iv^6 , vii^{o7} , V , V^4_2 , i^6 , i^6_4 , V , vii^6 , i

Note that the fourth beginning bar 3 above is augmented, and makes a satisfactory vii^{o7} in d minor. Two fourths are marked with arrows. Possibly the perfect fourth on beat 2 of bar 2 could be explained as an arpeggio six-four, left by step in the bass, but it is somewhat awkward. The same fourth, on beat 3 of bar 5, is impossible. In the next example a better treatment changes both of them to sixths (which are thirds in the upper transposition), using an auxiliary note to maintain motion in bar 5.

Example 10

Bad fourths corrected

Triple and quadruple counterpoint

Triple counterpoint, in which any one of three voices makes a good bass for the other two, lies outside the range of this book. It is merely an application of the same method, extended to include three correct versions instead of two. It may well represent a stimulating challenge to the enterprising student; and this challenge is even greater with *quadruple counterpoint*, where any of four parts can be a good bass for the other three. A word to the wise, for those who accept this challenge: be sure that the c.f. can really be a good bass in the first place!

Fugal expositions

Some examinations ask candidates to write a fugal exposition on a given subject. Usually this requires the creation of a countersubject (CS) in double counterpoint, which can act as a bass below either subject (S) or answer (A). This question also requires some sophistication about the vexing problem of "real" and "tonal" answers.

Normally examinations require three or four-voiced fugal expositions. Two common patterns of the entries and countersubjects in historical three-voiced fugues don't require the CS to appear in the bass:

Soprano	S---	CS----	free counterpoint	A-----	CS-----
Middle part	A----	CS-----		S-----	CS----
Bass	S-----				S-----

For its role in these expositions the CS doesn't need to be in double counterpoint. However later in the fugue it will certainly find its way into the bass, so an uninvertible CS won't really do even in cases like these. Some examinations guard against uninvertible CS's by requiring an entry pattern like that on the next page:

Soprano	S-----
Middle part	A-----
Bass	S-----

Other examiners may require a "redundant entry", that is a second entry in one of the voice parts which has already entered, in order to show the CS in the bass. Or of course, they may ask for a four-voiced fugue, again with a redundant entry if the bass is the last voice to enter.

In any case, the candidate should begin by getting an appropriate answer for the given subject.

That great musician Sir Donald Tovey has referred to the "vexatious minutiae" regarding fugal answers, which seem to exist only to trouble students of composition and theory. Indeed, some scholars in the past, attempting to formulate rules which cover every eventuality, and which encompass all the procedures ever used by Bach, have produced among the most dense and unreadable books known to humanity. Nevertheless, there is a real problem hidden among all the verbiage, and fortunately, there is also a solution to that problem.

The problem is this. If a fugue subject modulates to the dominant key, that's fine; the answer will normally begin in the dominant, too. But if the answer then modulates the same way, up a fifth (or down a fourth), *it ends up not in the tonic, but in the key of ii, the supertonic*. So instead of a balanced structure which plays off tonic against dominant, in terms of a home key, the unaltered answer produces a tonally open, and potentially a chaotic structure. To make plain the overall tonality of the piece, the answer must be persuaded to return to the tonic, where the subject moved to the dominant.

And saving the listener's sense of tonality requires yet more. If the dominant note appears early in the subject, focusing our ears upon the home tonality requires that it be answered not by the supertonic (five steps above the dominant), but by the tonic. So in G major an opening fourth, D to G, should be answered not by a fourth, but by the fifth G to D:

Example 11 Opening of subject and tonal answer

Fugue in G major

J. S. Bach



Dominant up to tonic in S (a fourth) is answered by tonic up to dominant (a fifth); see boxes.

When a subject modulates, care must be taken that the corresponding modulation in the answer brings it back to the home key. In the next example, in E flat, the S. modulates to the dominant key, outlining the dominant seventh chord of B flat in the five notes following the rest. At the same point in the answer, the dominant seventh outlined is that of the *tonic key*, not (as in a real answer), that of *ii*. This requires an adjustment, which Bach makes unobtrusively at the rest, where the major second of the S becomes a third in the A.

Example 12 Modulating subject and tonal answer

Well Tempered Clavier, Book I, Fugue No. 7

J.S. Bach



The occurrence of modulation in a subject doesn't necessarily require a real answer; everything depends upon the balance between tonic and dominant. The following subject, beginning in f sharp minor, modulates first to its subdominant b minor, then to the dominant, and then returns to f sharp.

Example 13 Modulating subject which takes a real answer

Well Tempered Clavier, Book I, Fugue No. 14

J.S. Bach

Subject

Answer

Even though the second modulation in this answer is to the supertonic of the home key, it is immediately contradicted by a return to the dominant. No harm is done to the tonal structure overall, and Bach uses a real answer.

Serious study of tonal answers lies outside the scope of this book. The student who wishes to learn more is urged above all to study J. S. Bach's procedures, particularly in *The Well-Tempered Clavier*, the many fugues for the organ, and in *The Art of Fugue*. To a considerable extent, once the basic need to focus answer as well as subject on the home key is clear, what sounds right will be right: acceptable, not perhaps to an advanced examining body, but for practice in general contrapuntal writing. Those preparing for advanced examinations should consult specialized books devoted to fugue; those merely broadening their musical culture should always remember that very many fugues have real answers, which are exact transpositions of their subjects.

By the same token, many fugues by historical composers don't have recurrent countersubjects; instead, in these cases, the A is accompanied by free counterpoint, the next S by two free parts, and so on. Fugues for examination purposes, however, are likely to require recurrent CS's, in double counterpoint, if only to prove that the candidate knows what these terms mean.

Real & Tonal Answers

At beginning and end, Tonic always answers Dominant---Dominant answers Tonic except when they occur in stepwise motion. This implies fourths inverted to fifths, or vice versa, with adjustments in the Answer to make it emerge in the key of V or I.

Modulations may require altered answers but not if a real answer ends in Tonic or Dominant. Then the real (unaltered) answer is preferred.

Codettas, Redundant Entries, and Counter-expositions

In its simplest form a fugal exposition is three times as long as the subject, for a three-voiced fugue, or four times as long for a four-voiced fugue. In these cases the exposition consists of

S alone

A + CS

S again, + CS + a free part,

and for a four-voiced fugue A again, + CS + two free parts.

This is the form taken by our next example, which is from Bach's *The Art of Fugue*, but not quite as he left it. In our Example 14, bar 8 (see box) has been altered, to lead directly into the entry of the Subject in the third (tenor) voice. With a four-bar S, this makes the four-voiced exposition sixteen bars long (actually ending on beat 1 of bar 17)

Example 14 Simple fugal exposition

The Art of Fugue, No.4 Altered Subject 2

J. S. Bach

1 Subject

2

3

4

5 Countersubject

6

7

8

Answer (tonal: D - A answers A -D)

9 Free part

10

11

12

Countersubject, altered and transposed to fit Subject

Subject

13 Free part

14

15

16

17

Free part

Countersubject

Answer

As Bach wrote the exposition above, however, a *codetta* was inserted following the second entry. This happens quite frequently in fugal expositions, sometimes to smooth out a modulation before the next entry, sometimes just because the composer wanted to delay that next entry. Unless an examination question expressly forbids it, any exposition may include a *codetta*. On the next page we have the opening of Example 14 as Bach wrote it.

1 Subject

2

3

4

5 Countersubject

6

7

8

Answer

Codetta: delays next entry, smooths modulation

9

10

11 Free part

12

13

Countersubject, altered and transposed to fit Subject

Subject

A composer of fugues is also at liberty to add a *redundant entry* of S or A. This will follow the complete three- or four-voiced exposition, but will not add another voice part: instead, it will appear in a voice which has already entered. An extension of this process is a *counter-exposition*, in which (having completed the first exposition) the composer does it all over again, S in one voice, A in the next, and so on. Generally the order in which the parts enter is different from the first, principal exposition. The first entry of the counter-exposition is often accompanied by one or more of the other voice-parts. Redundant entries, and above all counter-expositions, make for long fugues, and they are not desirable in examination situations where time is at a premium. They are a good idea only when the material and its contrapuntal treatment are sure to be of a very high order; unless the music's very good it should not risk wearing out its welcome!

Copy the following subjects, and for each of them write a countersubject in invertible counterpoint.

(a) J. S. Bach

(b) Arcangelo Corelli

(c) Antonio Vivaldi

(d) Felix Mendelssohn-Bartholdy

(e) Dietrich Buxtehude

(f) Dietrich Buxtehude

(g) Georg Böhm

(h) J. S. Bach

(i) Felix Mendelssohn-Bartholdy

If the details of fugal answers lie beyond the intended scope of this book, a complete fugue may seem to go very much *farther* outside it. Nevertheless there is much to be learned, and much contrapuntal facility to be gained, in working through the processes and structures of a complete fugue. This section suggests some of the ways in which such work might be pursued.

First, it should be noted that Bach, the supreme writer of fugues, does not always, or perhaps not even often, follow textbook outlines. His mastery of counterpoint was so great, his "ear" for what would work so nearly infallible, and his imagination so fertile, that he is difficult to categorize, and even more difficult to emulate. But among his simpler fugues, and among the examples by dozens of other composers, there are enough similarities that a kind of basic fugal structure can be suggested.

1. The Exposition It is worth spending some time with the chosen subject, before writing other parts. Answers should be sought to several questions, because they affect the resources available later in the fugue. These questions should include the following:

- a) Does the fugue require a *tonal answer*? Look for modulations, especially at the end, and tonic and dominant notes, especially at the beginning.
- b) Will the subject go *in stretto*? (That is, will it overlap with itself-perhaps at two different pitches to produce workable counterpoint?)

This question is best answered with a matrix score, giving the subject on one staff, with several empty staves on which the student can experiment with various starting points and pitches, for stretto answers in another voice. The supreme achievement in stretto is a Stretto maestrale, with complete entries in all voices, overlapping each other; but remember that subjects which permit this are rare, and indeed that most subjects won't go in stretto at all

- c) What *rhythmic elements or figures* in the subject will lend themselves to further use, either in the CS, or in episodes which occur between later entries? How will the rhythm of the CS interact with that of the S?
- d) Can the S usefully go in *augmentation* (notes of double length, or longer), or in *diminution* (notes of half length, or *shorter*)?

Occasionally a subject will achieve great dignity by appearing (generally toward the end) at a broader pace than usual. Less frequently, a double-speed version will create scintillation and interest. For most subjects, however, diminution produces mere chatter, and augmentation leads to simple boredom; so the fugal composer is advised to use these tools only if s/he is convinced that they add to the musical effect.

- e) Finally, consider whether or not the subject might work *in inversion*; not this time the contrapuntal inversion of double counterpoint, but rather in simple melodic inversion (see page 92). Like augmentation and diminution, inversion is a tool for very occasional use; but sometimes a rhythmically striking S remains recognizable and interesting in an inverted form.

When the possibilities of the subject have been thoroughly explored, layout the exposition entry by entry, with S followed by A in the second voice, then S again in the third voice. Leave space for a codetta if you are likely to include one.

Next construct your CS, first of all in the form which accompanies the A. Then if the A was tonal, rework it to fit the S (a real answer just needs a simple transposition of the CS). If there is a fourth entry, which will be of the A, copy the CS from its first appearance into the appropriate voice part and octave. Symbolize the probable chord structure, and proceed to write the free parts which accompany the third and possible fourth entries. Naturally, motivic or figural connections among these parts are highly important if the piece is to be real music, and not merely an accidental gathering of unrelated tunes. Include the codetta, if any, using motives derived from S, CS, or both.

2. The Middle Section Essentially, what follows the exposition in most fugues is an alternation of *Episodes--continuations* of the free parts, which do not include an appearance of the subject--and *Middle Entries* of the subject. *Middle entries* develop the original tonic/dominant tension of the exposition by introducing other keys, changes of mode (minor/major or major/minor), and also through the use of fugal devices you may have discovered in preliminary work with the subject (stretto, augmentation, and so forth).

It is good practice to sketch the tonal outline of this section, which may vary between eight or twelve bars for a very short fughetto, and many pages for a long fugue. Plan the modulations, sketch in the entries of S, each of which will have an associated appearance of CS if there is one. Then begin writing (many people prefer to write the episodes first). A reasonable first outline might include four episodes and four middle entries, some of which might be double entries in stretto, or in a relationship like S and A. Episodes very often leave one voice-part resting, ready to enter with the next middle entry of S.

3. The Conclusion Most "textbook" fugues announce the approach of the conclusion with a *Final Entry* of S in the original key; following the last episode. It will use the CS, if there is one, and is normally placed where it will ring out with authority and energy. After that entry there is usually a coda, which may be partly or entirely over a pedal point, and which often includes a complete or incomplete entry of S & CS, not necessarily in the tonic key.

Canon

Writing a strict canon, where what one voice states is faithfully imitated a few beats or bars later by a second voice, is a demanding business. The student may like to undertake it, because it imposes extreme demands on both ingenuity and (if available) inspiration. Historically, may canons have tended to be short; it's easier to sustain ideas and imitation for a page or so than for many minutes of music. As in most things contrapuntal, Bach is the exception, and his canons in *The Art of Fugue* and elsewhere may well be regarded as among his greatest technical and musical achievements.

For us lesser mortals, a canon can be constructed by taking an opening, from whatever source (many of the exercises in this book would do). Write it out at the beginning of the score, for as far as seems appropriate (perhaps half a bar, a bar, or two bars--how far depends on the complexity of the line). This part which begins the piece alone, like a fugue subject, is the *Dux* (dooks) or *Leader*.

Then copy the same material, transposed if you wish, to begin the delayed entry of the second voice. (Canons can come at the unison, the octave, or various other more difficult intervals: fifth, tenth, twelfth, and so on). This part is the *Follower* or *Comites* (koh-me-tace).

This has begun the two voices. Now you must extend them, note by note. Each note added to the Leader must also be added (suitably transposed) to the Follower. Your choices for the first voice will, naturally, dictate the shape of the second voice also, and what you write must make a good bass when it's in the lower part. Like those learning to crochet or knit, you must be prepared ruthlessly to undo good ideas which turn out to be impossible.

Those who enjoy solving puzzles, and the naturally persistent, will have fun with canons.

Exercises continued

2. Write four-voice fugal expositions on the preceding subjects, using regular (recurrent) countersubjects in invertible counterpoint, which may be the ones you wrote for Exercise 1. Include a codetta in some of your expositions.
3. Expand your expositions from Exercise 2 into complete fugues; you may prefer to begin with three-voiced textures.

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